

THE EFFECT OF FOCUSED EDUCATION FOR
NURSING TEAMS ON POST-OPERATIVE
PAIN OF PATIENTS

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I declare that this thesis is my own work
and that it describes research planned
and carried out by me.



Foot operation by A. Oftade (old copy) from E. Holländer,
Die Medizin in der klassischen Malerei, 3rd edn.,
Stuttgart: F. Enke, 1923, f.p. 256 p. 402.
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"AN HOUR OF PAIN IS AS
LONG AS A DAY OF PLEASURE"

Dr. Thomas Fuller,
1732

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BEATRICE SOFAER

ABSTRACT

Evidence in the literature suggests that patients often suffer unrelieved post-operative pain which may be due in part to deficiencies in nursing education. The effectiveness of an educational programme for nurses on pain and its relief for post-operative patients was tested. The programme involved all nursing staff on each of four surgical wards.

Pre-educational interviews with nurses showed that they had a number of misconceptions about pain relief. The educational programme made use of ward-based discussions with staff to increase nurses' awareness and knowledge of pain. Topics covered included psychological aspects of pain, sociocultural factors associated with pain, the use of pain assessment and specific pain therapies, particularly analgesic drugs.

Patient outcomes were measured before the commencement of the educational programme (control patients) and after its completion (test patients). Statistically significant differences between test and control patients were found for several different measures of patients' pain experience. For example, test patients experienced a lower intensity and shorter duration of pain on the day of operation and the first post-operative day, greater proportions of test patients experienced less pain than they expected and felt that nurses cared a lot about pain relief. Test patients also said they felt less anxious in relation to a possible future hospitalisation than control patients. In addition, there were differences in the pattern of administration

of analgesic drugs between test and control patients and better documentation about pain in the nursing records of test patients.

The results showed that heightening nurses' awareness of patients' pain can be of considerable benefit to patients post-operatively. It is recommended that education about pain and its relief be considered a priority for nursing education, both at basic and post-basic levels.

PREFACE

The impetus for this study came while the author was working as a clinical teacher. Patients on surgical wards often seemed to be suffering pain, nurses often did not seem to realise when patients had pain, and different nurses seemed to react differently when it came to providing pain relief. There were certain puzzling questions that came to mind. Why was it that some patients appeared to wait for the drug round trolley before requesting or being offered analgesia? Why were patients who had undergone the same operation generally given the same analgesic drugs in the same doses, and at the same intervals, despite individual variations?

Observation of nursing practice led the author to think in terms of three factors that might have contributed to patients suffering unnecessary pain: lack of knowledge of staff regarding the individual nature of pain and the potential effectiveness of pain relieving measures; incongruence of beliefs and values of patients and staff; and lack of communication between patients and staff. It appeared that the current shortcomings in practice could be accounted for by deficiencies in the educational system. A preliminary review of the literature made before the study was planned substantiated these impressions. It was therefore decided to try and find out if education at ward level could improve post-operative pain relief.

CHAPTER 1

INTRODUCTION

THE INADEQUACY OF POST-OPERATIVE PAIN RELIEF

There is abundant evidence in the literature to suggest that patients often suffer unrelieved acute pain (Bonica, 1980; Bonica and Benedetti, 1980; Bonica, 1982). Post-operative pain is one of the most common forms of acute pain. Its relief is important not only as an end in itself but also as a means to facilitating mobility and ventilation of the lungs, permitting a productive cough and thus diminishing the risk of pulmonary complications (Knight and Mehta, 1978; Nayman, 1979; Bonica, 1982). However, investigations have shown that patients do not always obtain optimal relief (Keeri-Szanto and Heaman, 1972; Cohen, 1980; Kimberley et al., 1982; Weis et al., 1983). A number of other papers, editorials and correspondence also testify to this situation (Lancet, 1970, 1976; British Medical Journal, 1976, 1978; Aguwa and Olusanya, 1978; Angell, 1982; Bonica, 1982; Dodson, 1982).

There is no valid technical reason why post-operative pain should not be relieved. It may be considered the least complex of all types of pain since it has an obvious anatomical location and foreseeable end (Keeri-Szanto, 1979). Effective control can be achieved either by narcotic analgesia (the most common method) or by other methods of pain relief such as transcutaneous electric nerve stimulation (T.E.N.S.) or regional analgesia. Much of the responsibility for inadequate relief of post-operative pain must lie with the nursing staff who are in a position to make decisions as to whether or not patients receive analgesia, particularly in relation to the times of administration of analgesic drugs.

Inadequate relief may be due to a number of factors, including deficiencies of knowledge about pain among staff, inappropriate application of therapies and problems relating to communication (Lancet, 1971; Bonica, 1982; Weis et al., 1983). Indeed, it seems that nurses often do not recognise when a patient has pain and that their background knowledge about analgesics and analgesia may be inadequate (Smeder Fox, 1980; Weis et al., 1983). Nurses have also been shown to accept that pain may be unrelieved (Hunt et al., 1977).

Several studies of clinical practice have thrown light on some of the problems associated with the provision of pain relief. These can be summarised as follows:

- (1) Nurses stereotype patients on surgical wards and subsequently treat them according to their prejudices (Wiener, 1975).
- (2) There is a low correspondence between judgments of pain by nurses based on non-verbal behaviour of patients and patients' self-reports of pain (Teske et al., 1983).
- (3) Differences of knowledge, beliefs and experiences of medical and nursing personnel can result in wide variations in staff's perceptions of patients' pain and subsequent decisions in pain relief (Charap, 1978; Jacox, 1979).
- (4) Differences exist between patients' and nurses' perceptions of the patients' pain (Hunt et al., 1977).

- (5) Nurses from different cultures assume different degrees of suffering in the same patient (Davitz et al., 1977).
- (6) Pain expression and tolerance are strongly influenced by nursing staff's control (Fagerhaugh, 1974; Wiener, 1975; Quayhagen, 1977).
- (7) Nurses and doctors can have erroneous beliefs about narcotics and may be overly concerned about the possibility of addiction (Marks and Sacher, 1973; Benzshawel, 1978).
- (8) Trained nurses are unsure about learners' background knowledge of pain relief. Tutors expect the major part of teaching about pain to be done in the clinical area (Short, 1978).
- (9) Pre-operative discussion of pain relief with patients is not usually practiced (Short, 1978).
- (10) The incidence of pre-operative teaching to patients and documenting of this activity is low (Girouard, 1978).

Of particular note is a recent study of 109 post-operative patients in the United States (Cohen, 1980), where 75% of patients were found to be in moderate to severe post-operative pain despite the fact that doctors had prescribed analgesia. Cohen suggested that nurses make irrational choices about the amounts of analgesic administered. Nurses in the study indicated that complete relief of pain after surgery was not their major goal. In a much

earlier investigation by Keats (1956) which, among other things, looked at the characteristics of post-operative pain and its treatment, it was also noted that nurses made observations regarding post-operative pain which were "based on criteria not necessarily in line with good medical practice". However, in Keats' study, nurses were also sometimes found to be over-using narcotic analgesics, extending administrations unnecessarily beyond the second post-operative day. Nevertheless, the majority of evidence points to the under-treatment of patients with analgesic drugs (British Medical Journal, 1976, 1978; Angell, 1982; Weis et al., 1983).

What has certainly emerged is that, as far as nursing management is concerned, the treatment of patients' post-operative pain is frequently not appropriate. Keats (1956) commented that nursing practices acquired during training, or later, have a profound effect on post-operative treatment, while McFarlane (1977) has emphasised that nurses are educated for practice. It follows, therefore, that if a nurse receives little or no education regarding the importance of pain management, she may not recognise when a patient has pain, or may not be able to relieve pain effectively.

On the other hand, several authors have suggested that when appropriate nursing action is taken it can be most effective in the relief of pain. For example:

- (1) Lessening pre-operative anticipatory fear and anxiety results in reduced post-operative pain (Luna, 1971; Hayward, 1975; Ellis, 1978).

- (2) The quality of the nurse-patient relationship influences the effectiveness of nursing interventions (Dodson and Bennett, 1954; Moss and Meyer, 1966; McBride, 1967; Diers et al., 1972).
- (3) Pain can be assessed with a view to achieving optimum pain relief (Wiener, 1975; Hunt et al., 1977; Knight and Mehta, 1978; Roland, 1978; Graham et al., 1980; Bourbonnais, 1981).

The association between pain relief and nurse-patient interaction suggested by these studies is not unexpected for it is to the nurse that the patient often communicates pain. Good communication is fundamental to the relief of suffering. Bond and Pilowsky (1966), in their study of pain and analgesic administration, have shown that "the communication of pain appears to be closely related to the staff-patient relationship". It is important for the facilitation of pain relief that nurses assume responsibility and accountability as professional carers. This involves learning more about the importance of good communication between patients, nurses and doctors and has been discussed elsewhere (Sofaer, 1983; see Appendix IVe). Accountability and responsibility in caring for patients may only be achieved, however, by increasing knowledge. "Caring is the nursing profession's reason for being" (Bloch, 1975). Pain relief is the core of nursing practice (Sofaer, 1983; see Appendix IVd) and, if nurses are to do it well, the major responsibility must fall on nurse educators (Hayward, 1975).

THE NEED FOR EDUCATION

There are a number of ways in which nurses can contribute to improving the relief of post-operative pain. These include sensitive interpretation of the doctor's prescription for analgesic drugs and psychological strategies mostly aimed at reducing anxiety. The latter have been popular because of the apparent relationship between stress and post-operative pain, based notably on the frequently cited work of Janis (1958) and Egbert (1964). However, despite these opportunities available to nurses, it has been shown that pain relief tends to be neglected (Fagerhaugh and Strauss, 1977). Possible reasons for this were given as the clinical workload, lack of accountability for pain control within the nursing profession and the complexity of nurse-patient interactions. Fagerhaugh and Strauss suggested that because patients usually do not challenge the staff they are assumed to be satisfied with how their pain is managed. They found that pain management was organised more around staff's expectations of recovery from surgery than the actual course of events, and they urged educational reform to make nurses more aware of the social and psychological aspects of pain management.

The need for education in relation to the alleviation of pain has also been stressed by a number of other authors. Bonica (1981) and Scott (1982) strongly urged the implementation of educational programmes for health professionals. Dodson (1982) suggested that nurses trained in pain relief would improve the situation. Porter and Jick (1980), in their study of the incidence of addiction, concluded that a primary cause of inadequate

treatment of acute pain is the inadequate education of doctors and nurses. Also, among both doctors and nurses, the monitoring of technical equipment may be seen as more of a priority than careful titration of narcotic analgesia (Scott, 1982). An editorial in *The Lancet* (1971) pointed out that the situation may not have arisen through lack of humanitarian feeling on the part of health professionals but may, in part, have been caused by a lack of understanding of the many factors which influence pain.

BRIDGING THE GAP BETWEEN EDUCATION AND SERVICE

There exists within the nursing profession a dichotomy between the clinical area on one hand and the classroom on the other so that integration of nursing service and education does not widely exist (Weatherston, 1981). This has created problems in providing good care and presents difficulties in practising the ideals learned in basic training (Kramer, 1974). There are particular difficulties as far as pain relief is concerned. What the patient is confronted with in most hospitals is a team of nurses who vary in age, experience, knowledge and rank. If education were aimed at trained nurses alone, limited benefits might accrue to patients since ward charge nurses are influential in their own territory. If education were aimed at learners only, then benefits to patients would take some time to filter through and, in the process, learners might well become socialised into the existing traditional clinical environment and may acquire habits at variance with the ideals they have been taught. In addition, there are often members of the team, such as enrolled

nurses and nursing auxiliaries, who have considerable patient contact and to whom patients may well turn for sympathy and/or pain relief. It is therefore important for education to be aimed at all nurses who are caring for patients and this could perhaps be done most effectively in the clinical area.

Teaching in the clinical setting has traditionally been confined to nurses in training and research projects relating to education of nurses on the ward are few. Alexander (1982) has described the effect of patient-centred teaching as opposed to classroom teaching in terms of educational outcomes for learners. She found that students taught on the ward performed better in an educational test than students taught in the classroom. However, although patients were said to benefit from the teaching programme, Alexander's report does not include any assessment of patients' own views. Quenzer (1974) used a seminar approach for newly trained nurses to help them become "genuine carers" and practice patient-centred behaviour rather than acquiring patterns of behaviour which they believed to be pointers of good care. Quenzer's seminars took place away from the clinical area in a "safe climate". She assessed changes in attitude and behaviour of the nurses through her own observations and those of nurses' friends and relatives, doctors and supervisors, but not directly in terms of patient outcomes. Tierney (1975) taught nurses in a mental handicap ward how toilet training could be made more effective using behaviour modification techniques. Nursing staff were involved in measuring the effectiveness of the programme in terms of patient outcomes.

It is undoubtedly a difficult problem to develop valid measures of effectiveness of nursing. As Levine (1960) has pointed out, the search for meaningful measures is "the most difficult and most important aspect of the design of nursing research". However, the value of any education can only be assessed in terms of care received by the patient. In this respect, research related to patient outcomes is essential (Bloch, 1975). Weisenberg (1977), in an excellent review of studies concerned with pain and pain control, has also suggested the need for research into the effect of the "delivery system organisation" on pain expression and control. As far as the nursing profession is concerned, Ford (1980) has urged the unification of practice, education and research in the pursuit of quality nursing care. Blenkinsop (1982) suggested that action research would assist in closing the existing gaps.

ATTEMPTS TO IMPROVE PAIN RELIEF

Although much has been written about the plight of patients, the relative benefits of different therapies and the need for education, the effect of nursing education on the relief of post-operative pain has received only scant attention. Lawrence and Lawrence (1976) described a twice weekly evening class for nurses in a pain control unit in California. These classes were said to have been greeted with enthusiasm. More recently, Foglesong (1983) reported the implementation of a nursing staff development class on analgesia administration to surgical patients. Analgesia administrations increased after the classes, particularly 12 hours

post-operatively. In addition, there were greater numbers of narrative entries about pain relief in the nursing records. However, no mention was made of the response of patients to the programme. It is encouraging to note, however, that Bond (1980) cited one study where nurses on a medical ward had received some lectures on psychological and physical management of pain. Nurses on this ward were said by patients to be more interested in their suffering when compared with patient reports from a surgical ward in a hospital where pain management was not part of the educational programme.

AIM OF THE PRESENT STUDY

The need for education of nurses in relation to post-operative pain relief has been widely recognised. In addition, the importance of using patient outcomes as criteria for measuring care has been emphasised. It was therefore felt appropriate to attempt to unify service and education by testing the effectiveness of a ward-based educational programme on pain and its relief for all nursing staff on surgical wards, using patient outcomes as measures of effectiveness.

The preparatory reading for the educational programme was extensive and covered several aspects of pain and its relief, including possible correlates of pain perception such as age, sex and personality, the influence of social and cultural factors, pain assessment and the use of different pain therapies. A review is not presented here in conventional form for the following reasons. First, most of the material covered is referred to in

my adaptation for the U.K. of an American textbook on pain management for nurses (McCaffery, 1983), undertaken at the invitation of the author and publishers in the early stages of the project. For an extensive report of the literature review carried out by the researcher, the reader is referred to this publication. Second, material prepared for the educational programme has been produced in book form and appears here as Appendix I (with permission from Harper & Row, London).

Appendix II and Appendix III contain various items of documentation referred to in subsequent chapters. Five publications arose out of the study and were a necessary part of the project. These can be found in Appendix IV which should be regarded as an integral part of the thesis. The author was encouraged to publish this material, firstly, because interest had been expressed in the project both from the nursing and medical professions and, secondly, in order to safeguard the originality of the approach. Only one of the publications, that referring to 'The Functioning of Nursing Teams' (Appendix IVb), appeared in print prior to completion of the data collection.

CHAPTER 2

RESEARCH DESIGN AND METHODS

The main aim of the research was to test whether implementation of a ward-based educational programme on pain management for nursing staff would affect the management of post-operative pain by nurses. The study took place in the natural clinical setting since, if the programme proved to be effective, it was intended that the findings should have direct relevance for nursing practice. Such "real situation" research has been advocated by Greenwood (1984). Previously, Tierney (1974) had stated:

"Perhaps more than in any other area, it is in the practical nursing situation that facts must be proved in order to have a scientific basis for improvement. But a hospital ward is hardly an ideal experimental situation. How can variables be controlled in such a situation? What criteria can be used to select patients to matched groups for controlled experiments? How can one ward be matched with another to provide a situation for replication of the experiment, so that the results obtained might be relevant to other wards or to other situations? Such problems encountered by the social sciences in general have tended to result in a tradition of artificial experimentation, convenience and accuracy being emphasised at the expense of realism. But realism is imperative in the use of the experimental method in nursing research and this means that the ward becomes the laboratory. So, methodological problems, particularly in relation to experimental method, must be considered in relation to nursing research at ward level".

No formal hypotheses were set up for testing. Several measures of effectiveness were chosen, including pain intensity and duration, numbers of administrations of analgesic drugs, the extent to which patients felt cared for and patients' perceived anxiety in relation to future hospitalisations. All were investigated, there being no way of knowing at the outset which would prove to be the most important. In addition, information was collected from nurses concerning their satisfactions and frustrations at work and in life generally,

and their knowledge, beliefs and values in relation to pain management, because it was felt that the nurses' personal satisfactions may be important variables affecting patient outcomes.

In keeping with Tierney's (1974) suggestions, the work takes a middle position between two conventional research methods: the classical experimental method on one hand and action research on the other. This position was selected deliberately in order to be as close as possible to the reality of nursing. Experimental design is based on criteria of internal and external validity without which any experiment cannot be interpreted. In this research, rigorous adherence to such criteria was not possible because, within the limitations of the clinical environment, control for extraneous variables or randomisation in selecting samples was inappropriate, as will be shown later. However, since the project was designed to investigate a possible relationship between the introduction of an educational programme and patients' pain experiences, it may be regarded as experimental in type. As far as action research is concerned, this has been described by Cope (1981) as follows:

"Action research may be described as a process, that is, as an ongoing series of events and actions. In this way action research is the process of first of all collecting a systematic set of data about an existing system, which is likely to be an organisation or some part of one. This data is collected with some specific aim or objective in mind (which in turn fashions what particular types of data are collected) and then fed back into the system. Actions are taken by changing selected variables which are chosen on the basis of both the data already collected and certain ideas and knowledge on the part of those bringing about that change".

The present project is in keeping with the criteria for action research in that the author acted as a change agent. However, there

was no involvement of staff either in planning the intervention or in scrutiny of their own work. This was in order to safeguard the experimental aspect of the design. Thus the project cannot be described as action research in the strict sense.

RESEARCH QUESTIONS

Four research questions were formulated:

1. Is it a fact that nurses in the wards selected for the study in Scotland lack knowledge about pain? If so:-
2. Could nurses' knowledge be improved by a ward-based teaching programme?
3. If a teaching programme were carried out, what is the effect in terms of patient outcomes?
4. Does the degree of stress experienced by nurses have any influence on how they manage patients' pain?

In order to answer Question 1 it was necessary: (a) to obtain biographical data about the nurses; (b) to design a knowledge test; and (c) to collect information about nurses' beliefs and values. Under other circumstances this information might have been analysed before attempting to address Questions 2 to 4. However, because of the findings in the literature and the researcher's own observations, the assumption was made that the nurses did, in fact, lack this knowledge, and investigation of the remaining questions was proceeded with without first analysing data pertaining to Question 1. This allowed the complete project to be implemented from the start. The information on nurses' knowledge was analysed on completion of the project. In order to answer Questions 2 to 4 a teaching package was developed, schedules for measuring patients' pain and recording their

experiences while in hospital and after discharge were constructed, and a method for assessing the psychosocial stress felt by nurses was studied by the author.

RESEARCH TOOLS

Five research tools were used. These were largely original, although they incorporated certain elements derived from other sources. Two were used to collect information from or about patient participants - the Ward Data Schedule and Home Interview Schedule, and three to collect information from nurse participants - the Heimler Work Orientation Schedule, Self-Administered Knowledge Test and Main Nurse Questionnaire.

The Ward Data Schedule

The Ward Data Schedule (Appendix IIa) was designed to be completed on the third post-operative day. It was used to note comments found in the nursing Kardex in relation to assessment of the patient's emotion and reports of pain, and to record details of the operation and consumption of analgesics. The analgesics prescribed (drug, dose and regime) and the analgesics given (drug, dose and time of administration) were recorded in order to calculate the total narcotics, total non-narcotics, total analgesics, total drug round administrations, total non-drug round administrations and changes in prescription for each patient. These data, collected before and after the educational programme, provided independent objective measures of the effect of the programme.

Also on the third post-operative day each patient was approached and, following verbal consent to participate, eight graphic rating scales were administered to record retrospectively the average

intensity and duration of pain experienced by the patient on the day of operation and the three succeeding days. Bond (1981) has suggested that the visual analogue scale (of which the graphic rating scale is a variant) is a useful tool for measuring what the patient wishes to tell us about his pain. It therefore provides a means of monitoring the pain experience. Huskisson advised in a personal communication (1980) that the graphic rating scale was appropriate for measuring pain intensity and duration. In the present study the words:

S L I G H T M O D E R A T E S E V E R E for intensity

or S H O R T M O D E R A T E L O N G for duration

were placed below the analogue scale instead of identifying the end points only. It has been suggested that this may assist the patient in deciding the position of his score. This type of scale, where the words are spread along the entire length of the line (as opposed to scales where the words are localised at specific points on the line) has been found to produce a uniform distribution of scores that can conveniently be subjected to conventional non-parametric statistical analysis (Scott and Huskisson, 1976). Its retrospective use is acceptable because, as has been shown by Hunter et al. (1979), acute pain experiences can be remembered for at least five days. On the advice of McGrath (1981), the same format of presentation was observed for each patient, both in terms of verbal explanation and by only exposing the relevant scale, uncovering subsequent scales after the preceding one had been marked by the patient. Verbal presentation of the intensity scale was as follows:

"Here is a line representing no pain at one end and pain as bad as it could be at the other end, with slight, moderate and severe spaced out between. Place a mark on the line where it was for you on the ----- day".

The number of minutes post-operatively when a patient was not covered by analgesia was estimated from the patient's medical records. This was taken as the interval between the time when pre-operative and inter-operative analgesia were judged to have been ineffective (based on dose and time of administration) and the time when the first post-operative analgesic was administered. The estimate was made for each patient in collaboration with a consultant anaesthetist who acted in the capacity of adviser to the study and who was not practicing in any of the hospitals where the study was carried out. This collaboration was considered appropriate since the author, as a nurse, did not have the necessary knowledge and experience to estimate the efficacy and duration of inter-operative analgesia. The estimate provided an indication of how long a patient may have been in pain immediately after the operation.

The schedule was pre-tested on three sets of patient records for ease of abstracting the selected information. Administration of the graphic rating scales with accompanying explanation to patients was also pre-tested three times on randomly selected patients for ease of understanding. No problems were encountered.

The Home Interview Schedule

The Home Interview Schedule (Appendix IIId) was designed to find out patients' subjective impressions of their care. The schedule could not be validated by checking its results against reliable information from an independent source. Responses were therefore taken at face value. Appropriate outcome measures were defined by the extent to which patients subjectively felt cared for in terms of pain relief and by patients' own perceptions of anxiety in relation

to a possible future hospitalisation. Patients were asked about their expectations on admission, their pain and pain relief experiences, and their views of staff's perception of their pain. Specific questions were formulated in the light of what had been found in the literature, in collaboration with two members of the public who had recently undergone surgery and in discussions with colleagues and academic supervisors. Patients' perception of their own anxiety before and after the recent operation was measured on a visual analogue scale (see p. 268 and p. 275). Such scales have previously been used for the measurement of feelings by Aitken (1969). It was recognised that the scale did not provide a measure of anxiety per se, although the researcher took the measure to be an indication of "patient perceived anxiety". The completed schedule was pre-tested on three other members of the public for intelligibility, after which some minor adjustments were made to the wording of several questions. A tape recording of the author's interviewing technique was listened to by one of her academic supervisors and no modification was deemed to be necessary. Subsequently, over the period during which the schedule was used, the researcher tape recorded interviews with four different patient respondents in order to monitor her own objectivity of administration. Reliability of the researcher's interviewing technique over time was ascertained by the independent judgement of researcher and supervisor.

Some of the data collected on the Home Interview Schedule were intentionally redundant while other data proved to be redundant after analysis. The intentionally redundant information was that relating to previous hospitalisations. Questions concerned with previous hospitalisations were included simply to help the patient to become

used to answering such questions before being asked about the hospitalisation of interest. The biographical data relating to education proved to be redundant because of ambiguities in the structure of certain questions that were not apparent on pre-testing or after the pilot study (see p. 109). Answers to the open-ended questions were categorised by the researcher in collaboration with a member of staff. Reliability of the coding of these categories was achieved to 100% agreement.

The Heimler Work Orientation Schedule

The Heimler Work Orientation Schedule (Appendix IIIa) was used to collect information about the satisfactions and frustrations of nurses at work and in life generally. It is an adaptation of an established and validated tool (the Heimler Scale of Social Functioning) that is usually used in therapeutic situations. The Work Orientation Schedule has been applied extensively by Fulcher (1983) in studying the satisfactions and frustrations of residential and day care teams working with children. In this study, the Schedule was used in consultation with Dr. Fulcher and after special training by Dr. Diana Bates to ensure consistent and objective administration of the scale. Approval was given by Professor John Heimler, Department of Social Work, University of Calgary, Canada. The scoring method and established British norms for satisfactions and frustrations scores from the Scale of Social Functioning are discussed in conjunction with the results in Chapter 4.

The rationale behind collecting information about nurses' satisfactions and frustrations was twofold: first, to establish rapport and a climate of support for the nursing staff, an attempt

to counteract the potentially threatening presence of an outsider on the ward; and, second, to provide a possible basis for explaining how nurses' satisfactions and frustrations might affect the care they give to others. In an interim publication (Appendix IVb) it was possible to compare the balance of satisfactions and frustrations of two teams of nurses (those involved in the pilot study and those on the orthopaedic ward).

The Self-Administered Knowledge Test

Nurses' knowledge in relation to pain and its management was tested using 12 questions, five of which (Questions 3, 4, 6, 7, 8) were taken from McCaffery (1980) with permission (Appendix IIIb). An item analysis was not carried out on the knowledge test. The 12 questions were pre-tested on three registered nurses and two enrolled nurses for ease of understanding and no alterations were deemed to be necessary.

The Main Nurse Questionnaire

The main nurse questionnaire (Appendix IIIa) was used to collect further information about nurses' knowledge of pain and its management and to assess nurses' beliefs and values in relation to pain relief. The terms "beliefs" and "values" are used here to refer to opinions, and the importance given to these opinions, in order to elicit the principles by which nurses practice pain management. Questions referring to beliefs and values could not be validated and responses were taken at face value. The questionnaire evolved in the light of what had been found in the literature about nurses' management of pain, and through discussions with colleagues. Questions fell into eight categories, those enquiring about: (1) nurses' use

of time on the ward; (2) nurses' opinions as to the importance of patient variation; (3) nurses' views of patients in pain; (4) nurses' behaviour in relation to patients in pain; (5) nurses' knowledge of analgesic drugs and other therapies; (6) nurses' opinions about their own knowledge; (7) aspects of communication between patients and staff and among staff themselves; and (8) nurses' opinions about clinical practice. Two situational vignette questions were used (see Appendix IIIa). These were inspired by Benzshawel (1978). A question relating to the use of morphine was inspired by Smeder Fox (1980). Questions relating to the potency and duration of analgesic drugs were formulated in consultation with a consultant anaesthetist and a lecturer in Nursing Studies.

The Work Orientation Schedule and Main Nurse Questionnaire were pre-tested on six nurses (four State Registered nurses, two of whom had a teaching qualification, one enrolled nurse and one student nurse). The wording of some questions was subsequently modified to improve intelligibility. It was particularly important to note the time taken to administer them since it was anticipated that this would be an important factor in a busy clinical setting. The average time taken was found to be 40 minutes for the two parts together. Both patient and nurse questionnaires were checked for content validity by three lecturers in Nursing Studies.

THE TEACHING PACKAGE

Topics for Inclusion

Four aspects of pain relief considered of importance were included in the programme. These were:

1. Psychological factors associated with pain.
2. Cultural factors in relation to reaction to pain.
3. The use of pain assessment.
4. The use of pain therapies, for example analgesic drugs and distraction techniques.

It was felt that a knowledge of psychological and cultural factors that might influence pain perception would be helpful to staff in understanding patients' reactions. These two topics formed part of the teaching about the uniqueness of the individual. They were linked to the next topic, pain assessment, by discussions of the accountability and responsibility of nursing staff in communicating with patients, each other and medical colleagues. An attempt was made to increase awareness of the fact that an active effort was required on the part of nursing staff in pain assessment. The discussions of assessment led naturally to the final topic, that of analgesic drugs and other therapies. Throughout the discussions emphasis was placed on the importance of developing non-judgemental attitudes towards patients.

Method of Instruction

Formal classes and discussions have been used to fill specific gaps in nursing knowledge, for example by Girouard (1978) in her study of the effect of a change agent in pre-operative care. However, the method of instruction considered most suitable in this study was one of small informal discussion group sessions. The rationale behind using this method has been discussed by Quenzer (1974), Cooper (1978) and Quinn (1980), who have pointed out its particular advantages for teaching nurses. First, it allows for follow up of issues raised by permitting participants to ask

questions and clarify points; second, it provides a climate for development of participants in terms of thinking, decision-making and change of attitudes; third, the situation can promote interaction among group members and the teacher; and, finally, the method draws on the experiences of participants. It was recognised that some resistance might be present since, as Watson (1966) has stated, a research project is more likely to succeed if its goals are initially recognised by the subjects - this was not the case in the present study. Because it is unusual for all levels of nursing staff to join together in discussion, every effort was made to put participants at their ease and to create a relaxed atmosphere. For this reason formal educational objectives were not drawn up as they might have been in a classroom setting.

Each nurse was invited to be present at four discussions, one devoted to each of the topics listed above. However, it was often not convenient for everyone to be present at the same time and so sessions were repeated, sometimes more than once. One-to-one sessions were also held to accommodate individuals not able to be present at the original discussions, including newly arrived ward staff. In every case, reading material was provided in preparation for the discussions, as was done by Girouard (1978). The articles selected were from the nursing literature and were pertinent to the topics selected. There was some intentional overlap of content in order to accommodate nurses who may not have liked reading and therefore may only have read a proportion of the material offered. There was no attempt to coerce nurses into reading or to monitor their reading. Gentle encouragement was offered in the form of questions such as, "Did you find the ----- article of interest?". Encouragement of staff was

considered an important part of the programme, not only for the nurses but also because it may be infective and so passed on to the patients (Finer, 1970). Thirteen articles were available for circulation and offered in twos or threes for each nurse to read. The articles selected are referenced in Appendix IIIId in the order in which they were given to each nurse participant.

The articles formed the basis for discussions on psychological and cultural aspects of pain, the use of pain assessment and pain therapies. It was also felt relevant to demonstrate to each team the importance of the nature of interaction between nurse and patient in relation to managing pain and so role play was introduced, as described in Appendix I. So that nurses might appreciate how their personal experiences and subsequent prejudice might influence their perception of a patient's pain, participants were involved in an experiential exercise of recalling their impressions of an injury in childhood, both in terms of their own behaviour and the reaction of someone close at hand. These experiences were then hypothetically extrapolated to the ward situation in order to demonstrate how a patient's response to pain might be influenced by previous experiences. This exercise is also described in Appendix I. In addition, a tape recording of a patient relating her hospital experiences was played to each team. The recording is transcribed as Chapter 1 of Appendix I exactly as it occurred, although the patient's biographical details have been changed to preserve anonymity. This patient was not part of the sample for the research and agreed to the use of the tape recording for teaching purposes.

Nurses were invited to make written comments on the teaching material in particular and the project in general.

Additional Features

Several other references were available to participants who wished to extend their reading. If staff expressed an interest in trying out the pain assessment tool introduced in the educational programme (see Appendix I), its use was encouraged as part of the project.

SELECTION OF SAMPLES

It was recognised that differences of response to the educational programme between wards, in terms of patient outcomes, could occur because of pre-existing differences between wards (extraneous variables). These might include differences of ward environment (physical environment, transience of staff and bed occupancy, the extent of individualised care, prescribing policy, psychological climate), differences in the characteristics of nurses (age, sex, training, surgical experience, length of time on ward, personal experience of surgery) and differences in the characteristics of patients (age, sex, social class, personality attributes, cultural background, type of operation). Variation in the ward environment and in the characteristics of nurses was uncontrollable as far as the project was concerned. It was investigated to provide some indication of variation found in the normal hospital setting and also to provide possible explanations for any observed differences in patient outcomes between wards. Findings in relation to ward environment and characteristics of nurses are presented in Chapters 3 and 4 respectively. Characteristics of patients, on the other hand, were potentially controllable since it would have been possible to select only those patients who met previously established criteria.

Characteristics of Patients

Variables related to characteristics of individual patients might be responsible for differences of response between wards since patients may be unequally distributed between wards with respect to those variables which correlate with pain perception. Possible correlates include age, sex, personality type and social and cultural background.

Keats (1956) was unable to demonstrate a relationship between post-operative pain and sex, type or duration of anaesthetic, previous medical or surgical history, previous hospitalisation, personality type, personality disorder or pre-operative pain. He suggested that pain following surgery may be random with respect to obvious patient characteristics. However, more recent studies, many of which have been reviewed by Weisenberg, have not confirmed these findings. A number of conflicting results have been obtained, both in laboratory and clinical situations, perhaps because of inconsistency in how data were collected (Weisenberg, 1977).

(a) Age

Although laboratory studies of the effect of age on pain threshold have yielded inconsistent findings (Weisenberg, 1977), it seems that age may be an important factor in the clinical setting. Studies reviewed by Loan and Morrison (1967) suggest that while analgesic requirements may be less in older patients there may also be caution on the part of doctors when prescribing analgesics for the elderly. The latter conclusion is supported by the work of Pilowsky and Bond (1969) who demonstrated an association between patient age and a reluctance on the part of nurses to give powerful analgesics. It was therefore decided to control for age as far as was practical.

The age range chosen for patients in the study was 18-65 years. However, even this wide range proved difficult to adhere to because of unforeseen circumstances (discussed in Chapter 3).

(b) Sex

There is little evidence to indicate that a sex difference in pain threshold exists in the clinical situation, although Swerdlow et al. (1963) reported that female patients obtained more prolonged relief from an injection of analgesic than comparable male patients. On the other hand, two clinically based studies, reviewed by Loan and Morrison (1967), suggested that men are thought by staff to be more tolerant of pain than women. Furthermore, Pilowsky and Bond (1969) showed that female patients were more likely to receive analgesia on nursing staff's own initiative than male patients. It seems, therefore, that the attitude of staff towards patients of different sex may differ (Simpson and Parkhouse, 1961). It was considered wise to include patients of only one sex in the study because it would have been impractical to include a large enough number of patients to test for significance of any difference between the sexes. Females were chosen because it was felt that gynaecological surgery could provide a useful source of patients undergoing suitable operations.

(c) Social class

The literature review did not reveal any reference to an effect of social class on pain perception or behaviour. However, social class was considered a possible influence and limited information on patients' social class and on the opinions of nurses about the possible influence of social class on pain behaviour was collected. No attempt was made to control for this variable and the sample could not be made large enough to ensure that the distribution of social

class would allow for statistical analysis of the results.

(d) Personality attributes

Personality is now known to influence pain perception (Bond, 1980). For example, Parbrook et al. (1973) found a correlation between neuroticism and the severity of post-operative pain. Nevertheless, Weisenberg (1977) has counselled caution when using measurements of personality to predict pain perception.

Formal personality assessment is outside the scope of practising nurses and so no attempt was made to control for personality type in the patients studied. However, the relationship between personality, pain and anxiety (Bond, 1980) was discussed during the educational programme to alert nurses to the importance of patient variation and the consequent value of individual emotional assessment on admission to hospital.

(e) Cultural background

Zborowski (1969) has defined culture as the total way of life, the social legacy that an individual acquires. It has been shown that culture can influence pain perception (Zborowski, 1969; Weisenberg et al., 1975), although, because of the considerable variation within cultural groups, it is not possible to use cultural background to predict an individual's response to pain. Nevertheless, the influence of cultural factors was borne in mind when selecting patients for the study, only patients of local origin being included. The extent to which patients practised religion was also thought to have a possible bearing on pain behaviour since religious faith could possibly be used as a coping strategy by patients in pain.

(f) Type of operation

Recent publications indicate that the site and nature of surgery may affect the degree of post-operative pain. For example, particularly severe pain may follow surgery of the upper abdomen, chest, joints, anorectal area and back (Bonica and Benedetti, 1980; Tammisto and Tigerstedt, 1982). On each of the participating wards the advice of consultant surgeons and nursing officers was therefore sought in the selection of operations suitable for inclusion in the study. Attributes considered desirable were ready availability of patients, predictability of the course of recovery, minimum medical risk and broad comparability in terms of the potential for post-operative pain. It is relevant to note that Keats (1956) found that the numbers of doses of narcotic administered during the first 30 hours post-operatively to patients who had undergone hysterectomy, cholecystectomy or surgery of the foot were very similar. The mean number of doses and standard error for the three types of operation were 3.67 ± 0.20 , 3.29 ± 0.26 and 3.59 ± 0.34 respectively.

Acceptability of Variation

In studying the effect of any therapeutic procedure or, as in this case, an educational programme, a balance must be struck between selection of a group of subjects that is neither too heterogeneous nor too uniform. Excessive heterogeneity might cause the effect of the procedure to be masked, while any conclusions drawn from a uniform group would not have general applicability. Variation between wards, nurses and patients is, of course, typical in the hospital environment. It was therefore felt that an acceptable balance would be achieved by controlling for sex and, to some extent, for type of operation and age.

Criteria for Inclusion of Patients

Patients considered suitable for inclusion were those undergoing non-extensive elective major surgery for non-malignant disease within each surgical speciality. Patients undergoing surgery for a malignant condition were not included because participation may have involved an intrusion into their lives at a sensitive and stressful period. Within each speciality participating patients underwent similar surgical procedures. For gynaecology patients this was abdominal hysterectomy or a similar gynaecological operation involving an abdominal incision; for orthopaedic patients, a foot operation such as removal of halux valgus; and for general surgical patients, removal of gall bladder or another similar procedure. Patients included were those discharged from hospital within the normally expected time for each ward. Any additional stay was taken as an indication of complications and such patients were dropped from the study.

Criteria for Inclusion of Nurses

No criteria were set for inclusion of nurses in the study other than a positive response to a verbal request to participate. All nurses working on each ward during the time the study was being carried out were approached individually. None declined the invitation to participate.

As can be seen from the above discussion, the sampling of subjects was not random but purposive.

PROCEDURE

Negotiating Access and Perusal of Records

The preliminary exploratory work for the project took place in March 1981. Two tasks were defined as appropriate and as far as possible were dealt with simultaneously. First, five Divisional Nursing Officers were visited and the aims and proposed methodology of the project were explained to them. All informally agreed to the project in principle. Through the Divisional Nursing Officers, introductions were made to Senior Nursing Officers and Nursing Officers and finally to Charge Nurses on 18 wards in five hospitals. Second, during visits to these 18 wards, each of which had an average of a 25-bed occupancy, nursing Kardex records of approximately 450 patients who had undergone surgery were scanned. It was assumed that such records would provide a rough indication of the degree to which pain relief was felt to be a priority by nurses. No ethical approval was required at this stage because patients were not being identified. In only three instances were comments found relating to patients' pain. Two remarks reported, "Patient complained of pain", and the third comment was in relation to the efficacy of an analgesic drug.

With the help of the Nursing Officers, five surgical wards suitable for data collection were identified in three Districts:

For the pilot study - A gynaecology ward;

For the main study -

- (i) An orthopaedic ward with a high female bed occupancy;
- (ii) Gynaecology ward (A);
- (iii) Gynaecology ward (B);
- (iv) A female general surgical ward.

The staff at ward level were not informed of the topic of the proposed research or the nature of the data to be collected, although each charge nurse agreed to the participation of her ward. Divisional Nursing Officers, Senior Nursing Officers and Nursing Officers were requested to maintain confidentiality regarding the nature of the data to be collected. This safeguard was intrinsic to the design. The Chief Area Nursing Officer was then approached to sanction access to the selected wards. This was agreed in May 1981. Formal arrangements for data collection were commenced through the District Nursing Officers, through whom ethical approval was also sought from the District Ethical Committees. In addition, approval was obtained from the consultant surgeons whose patients would be involved. The Directors of Nurse Education in the Colleges of Nursing within the three Districts were also approached since it was envisaged that student/pupil nurses would be interviewed as part of the project.

All access was negotiated through personal meetings. Out of a total of 38 such meetings, 24 were with nursing administrators, ten with consultant surgeons and four with Directors of Nurse Education or their deputies. No refusals were encountered and, in each case, a letter was sent in appreciation for co-operation in the study.

Ward Modules

The time spent on each ward was regarded as a module. There were therefore one module in the pilot study and four in the main study. Each module consisted of four phases:

- (i) Collection of data from control patients;
- (ii) Collection of data from nurses;
- (iii) The educational programme;
- (iv) Collection of data from test patients.

The length of time spent on each ward was governed by the time taken to accumulate adequate numbers of patients. The minimum number of patients in each test or control group was considered to be around ten. A preliminary study of patient turnover on each ward indicated that two or three suitable patients would be available each week. Attempts were therefore made to complete each module within 16 weeks, although no rigid timetable was adopted.

Following completion of the Ward Data Schedule, each patient was asked for the name of her general practitioner and for permission to write to him about her agreement to participate in the project (Appendix IIb). Arrangements were made to visit the patient at home approximately three weeks after discharge from hospital and a letter reminding her of this arrangement was given to her (Appendix IIc).

Nurses were interviewed on an individual basis following the completion of the Ward Data Schedules for control patients and before implementing the educational programme. At this session the Self-Administered Knowledge Test was completed for the first time. Following interview, each nurse was invited to participate in the educational programme discussions. Each nurse was thanked formally by letter for agreeing to participate in the project (see Appendix IIIc). The Self-Administered Knowledge Test was repeated after the educational programme at a time convenient to each nurse.

When all staff working on the ward had been interviewed, the teaching programme was commenced in co-operation with the charge nurse. This co-operation was essential since the charge nurse plays an important part in nurses' learning experiences (Ogier, 1981).

Following completion of the educational programme for nursing staff, data were collected from patients in the test group along the

the same lines as for control patients.

Safeguards

A number of safeguards were adopted in order to minimise the risk of bias in the researcher, in nurse respondents and in patient respondents. All data collection and teaching were undertaken by the researcher and the greatest care was taken to administer the schedules in a standard and impartial way to all respondents. Each respondent was allotted an identification number and names were only used for the purpose of addressing participants. The abstracting of patient data from nursing and medical records was done away from the clinical area. During contact with a patient in hospital, when graphic rating scales were administered, the bed was always screened. Both patient and nurse participants were requested to maintain strict confidentiality regarding the content of their interviews. The nature of the data collection from patients was never revealed to nursing staff.

Limitations

Limitations of the study must be borne in mind when interpreting results and attempting to apply them to other situations.

Research tools: Even though the tools used were subjected to considerable scrutiny it must be recognised that the use of questionnaires that have not been tested for reliability may call into question some of the information collected. Nevertheless, because of the nature of most of the questions asked in the present study, there was no alternative.

Patient sample: The sample of patients was inevitably small, for a larger sample would have involved either the selection of more wards or extension of the period of data collection on each ward. It was

felt that the disadvantages of collecting a larger sample would have outweighed the advantages. A larger number of wards would have introduced further variation. In the event of extending the observation period, staff turnover would also have been a source of additional variation and would have necessitated further teaching sessions. The possible effect of prolonged presence of the researcher on ward practice would also have had to be taken into account.

Teaching: There were disadvantages in the same person carrying out both the teaching and collection of data relevant to the assessment of the outcome of the teaching programme. The possibility of nurses changing their practice to please the researcher cannot be discounted. The fact that the use of pain assessment fell off after the researcher left the ward (see pp. 139-141) may lend support to this. On the other hand, the assessment skills acquired may have become part of everyday nursing practice, making the use of a specific tool unnecessary. The personal intervention of the researcher as teacher over a period of 16 months may have led to changes in the pattern of teaching over time, although every effort was made to be consistent. Any variability in the quality of staff in different groups may have resulted in variability of interaction between teacher and ward staff, although the content remained the same. Consolidation of the content of the package did not take place until after the project was complete. To have introduced a book instead of personal teaching would have changed the nature of the research.

PILOT STUDY

The pilot study, consisting of a complete module, was carried out over a ten-week period. The details are reported in Sofaer

(1983; see Appendix IVc).

The following logistical problems were noted:

1. The ward was administered by two charge nurses, one of whom was found to be overtly more enthusiastic than the other in relation to innovation in general and discussions about pain management in particular.
2. The teaching programme took place during visiting times. There were often interruptions and background noise due to the setting of the room chosen for the discussions.
3. A timetable of discussions was drawn up with the charge nurse but it was not possible to adhere to it when the ward was busy and it caused some feelings of frustration in both participants and teacher. It was decided not to use such a timetable in the main study.
4. It was found necessary to telephone each patient prior to the day of the home interview since some patients forgot about the letter given to them in hospital.

Adjustments to Interview Schedules

As the pilot study progressed it was necessary to make some changes to the wording of some of the questions in the interview schedules. For example, at first a numerical system was used to predict patient-perceived anxiety if faced with a future hospitalisation and this was later changed to a visual analogue scale. The original ward data schedule was found to be cumbersome to complete and was re-designed for the main study. Appendices II and III contain the revised versions of all schedules, as used in the main study.

Psychological Problems Encountered

It was found that for certain patients who had experienced unrelieved pain in hospital, the aftermath feelings were still obvious during the home interview. No provision had been made to document these feelings in the pilot study but in the main study this deficiency was rectified. In addition, it was felt appropriate, after interview, for the researcher to listen to the stress of such patients and to attempt to leave them feeling supported and with the necessary courage should they have to face other similar procedures in the future. This need to relieve patient stress at the home interview was not foreseen but it illustrates clearly that suffering can extend well beyond the presence of acute pain and after the treatment of disease (Cassel, 1982).

Conclusion

In general, the pilot study was found to be practicably acceptable to all respondents and it was decided to proceed with the main study which commenced in January 1982.

METHOD OF ANALYSIS

All information collected on the various schedules was coded for computer analysis. Each mark on the ungraduated scales of pain intensity, pain duration and patient-perceived anxiety was converted to a numerical score by superimposing a graduated scale of the same length, comprising 20 equal sub-divisions, and reading off the appropriate value. All analysis was carried out using the Statistical Package for the Social Sciences.

All statistical tests used were non-parametric. These were considered most appropriate for all variables, either because the

scale of measurement employed was unsuitable for a parametric test or because of doubts about the normality of the underlying distribution.

Two-tailed probabilities are quoted for the Mann-Whitney U-test and the Wilcoxon matched-pairs signed-rank test. With respect to the chi-square tests, in all 2×2 tables when chi-squared was calculated Yates' correction factor was always used. When the expected frequencies in more than 20% of cells were less than five, categories in which the variable was scored were combined. Such categories are indicated in the tables as appropriate.

Details of the statistical tests can be found in Siegel (1956).

CHRONOLOGY OF PROJECT

The following diagram illustrates the sequence and duration of the various phases of the project:

	Oct. . . . '80	Oct. . . . '81	Oct. . . . '82	Oct. . . . '83	Apr '84
Initial literature review	xxxxx				
Design study	xxxx				
Exploratory work	xxx				
Negotiating access	xxx	x xx	x x		
Design and pre-test tools	xxx				
Pilot study	xxx				
Pilot analysis		xx			
Refining tools		xx			
Adaptation of McCaffery (1983)		xxxxxxxxxxxxx			
Main study		xxxxxxxxxxxxxxxxx			
Writing book of teaching package				xxxxxx	
Analysis of main study				xxxxxx	
Writing thesis				xxxxx	

Note: x = approximately one month

CHAPTER 3

IMPLEMENTATION, PARTICIPATION AND
THE WARD ENVIRONMENT

IMPLEMENTATION

The project was implemented over a 16-month period from January 1982 to April 1983. The four wards were studied consecutively apart from a slight overlap between the two gynaecological wards.

Some Logistical Problems in Obtaining Patient Samples and Ward Data

A number of unforeseen problems arose during the course of implementing the project, leading to difficulty in obtaining adequate samples of patients in the time available. On the orthopaedic ward the consultant involved also had beds on a ward not included in the study and there may have been occasions when suitable patients were admitted to this second ward. A lack of sufficient patients having foot operations led to the inclusion of three orthopaedic patients who had other types of operation in the control group. Towards the end of the orthopaedic module a prolonged period of industrial action by Health Service workers started, restricting the number of hospital admissions. It therefore became necessary to accept patients who fell outside the originally decided age range. On gynaecology ward A, two surgeons took annual leave during the study, reducing the number of operations. Industrial action by Health Service workers had an effect on both gynaecological modules. On the general surgery ward, data collection was interrupted by closure of the operating theatre for re-decoration during phase three of this module. It was therefore decided to break with the criterion of elective surgery only and to include three straightforward emergency cases

in the test group. Two of these three cases later declined a home interview.

Table 3.1 shows the numbers of patients in the different groups according to type of operation. The three non-feet orthopaedic operations were two knee operations and one femur operation. All general surgery operations involved an abdominal incision.

It was possible to collect ward data for all but four patients on the third post-operative day, as planned (Table 3.2). However, because patients' experience for the third day was not yet complete at the time when the data were collected, the analysis was restricted to measures of pain intensity and duration for the day of operation (day 0) and the first and second post-operative days (days 1 and 2). The one patient for whom ward data were collected on day 2 was seen very late in the evening and so it was felt appropriate to include her day 2 measures of intensity and duration of pain. One control patient on the general surgery ward could not recall her intensity of pain on day 0.

TABLE 3.1: Numbers of patients by type of operation in the control and test groups on each ward

Type of Operation	WARD									
	Orthopaedics		Gynaecology A		Gynaecology B		General Surgery			
	Control	Test	Control	Test	Control	Test	Control	Test	Total	
Laparotomy			11	15	9	9	0	1	45	
Colporal suspension			0	1	3	3			7	
Foot unilateral	8	9							17	
Foot bilateral	3	5							8	
Non-foot orthopaedic	3	0							3	
Gastric							7	1	8	
Biliary							2	5	7	
Other general							0	3	3	
Totals	14	14	11	16	12	12	9	10	98	

TABLE 3.2: Post-operative day on which ward data were collected

Day	Patients	
	Control	Test
2	0	1
3	43	51
4	2	0
5	1	0
Totals	46	52

Access to Nursing Staff

A major problem was the almost daily turnover of staff. Off-duty schedules were obtained from the charge nurse in advance and plans were made with the charge nurse for interviewing staff and implementing the educational programme. However, these plans could only be tentative since it was understood that the immediate needs of patients took precedence over the project.

In the orthopaedic and general surgery modules most of the nurse interviews were carried out on busy wards unaffected by industrial action. Arrangements for interviews and discussions were made on a day-to-day basis with frequent need for re-scheduling. However, on both wards charge nurses made every effort to co-operate and tried, whenever possible, to release staff for interviews and discussions. Nurses were given the choice of being interviewed at home or in the hospital, either on duty or off duty. On the orthopaedic ward several nurses

requested that the interview took place during their off-duty in the hospital, just before or just after a shift. On the two gynaecology wards, because they were only about half full, it was not so difficult finding time for interviews and discussions, although on gynaecology ward B the author was requested not to involve nurses on operating days.

Implementing the Educational Programme

Table 3.3 summarises the numbers of discussions held on the different wards and the numbers of nurses involved. The number of discussions simply reflects the time made available by each charge nurse. If a nurse was unable to attend a particular group discussion an attempt was made to arrange a one-to-one tutorial to cover the material she had missed. The numbers of nurses attending different numbers of discussions are shown in Table 3.4. Numbers in the 0 column represent those nurses who left the ward before or came to the ward after the discussion programme. Because of staff turnover, only 46 nurses both attended discussions and completed the self-administered knowledge test before and after the educational programme.

The attitude of the charge nurse on gynaecology ward B towards the educational programme was rather negative. She did not seem to consider that time spent discussing pain relief was worthwhile. One of her remarks illustrates this attitude: "You can't get involved in a patient's problems. You have to be a professional". She added, "I am set in my ways".

TABLE 3.3: Number of times discussions were held on each ward.
(Numbers of participants in brackets. One-to-one
discussions not included)

Ward	Discussion 1 Psychological Factors	Discussion 2 Cultural Aspects	Discussion 3 Pain Assessment and Role Play	Discussion 4 Pain Therapies	Total Discussions
Orthopaedics	5 (2,2,2,3,3)	2 (3,4)	4 (2,2,3,3)	2 (2,5)	13
Gynaecology A	3 (3,4,4)	3 (3,4,5)	3 (2,3,4)	2 (2,4)	11
Gynaecology B	2 (2,4)	3 (3,4,6)	1 (4)	1 (5)	7
General Surgery	2 (5,8)	4 (2,4,4,4)	4 (2,2,2,3)	2 (3,4)	12
Totals	12	12	12	7	43

TABLE 3.4: Numbers of nurses attending
different numbers of
discussions

Ward	Number of Discussions					Total
	0	1	2	3	4	
Orthopaedics	7	1	2	4	5	19
Gynaecology A	5	2	2	4	5	18
Gynaecology B	7	1	4	2	2	16
General Surgery	10	3	5	5	4	27
Totals	29	7	13	15	16	80
51						

Confidentiality

Confidentiality generally appeared to be well maintained, both between patients and staff and among the staff themselves. There was, however, one instance where a patient on gynaecology ward A, herself a nurse, refused a home visit where it was suspected that she had discussed her situation with a third-year student nurse whose subsequent evaluation of the project was not entirely favourable. An amusing incident on the orthopaedic ward illustrates what seemed to be the more usual attitude of patients. A consultant said to a patient, "What did the nurse ask you about your pain?". She replied, "That's between her and me, doctor". The consultant then explained that he was not referring to the author but a night nurse who had been attending to the patient's foot bandages!

Night Staff

It was not possible to interview or have discussions with the night staff. However, night staff were contacted by telephone and encouraged to read a series of articles left on the ward for this purpose.

The Need for Nurse Counselling

Four nurses interviewed showed signs of stress as assessed by the Heimler scale. A counselling session was offered outwith the context of the research to each of these nurses. One nurse accepted.

PARTICIPATION

A total of 98 patients and 80 nurses participated. The numbers studied and the time spent collecting data on each ward are summarised in Table 3.5.

Participation of patients fell a little short of that anticipated for the following reasons. Four patients in the control group on gynaecology ward A were dropped as it was found on subsequent checking of records that they had not had an abdominal incision, a requirement for inclusion in this group. One patient was dropped from the control group on the general surgery ward because a post-operative diagnosis of carcinoma was made. The numbers of subjects listed in Table 3.5 are the numbers studied after these five patients had been excluded. The discrepancies between the "Ward Data" and "Home Interview" columns in Table 3.5 occurred for a variety of reasons,

summarised in Table 3.6. Speculation as to how this loss of home interview information might have affected the results is not justified since only one patient specifically stated that she was dissatisfied with her hospitalisation.

Sixteen of the 80 participating nurses were not interviewed regarding their knowledge, beliefs and values about pain, leading to the discrepancies between the "Heimler Scale" and "Interview" columns in Table 3.5. This occurred because, although it was possible to administer the Heimler scale to all nurses and to obtain biographical information and offer the reading material, some nurses arrived on their respective wards at too late a stage in the module to allow an interview to take place.

TABLE 3.5: The number of weeks spent collecting data for each module, the numbers of patients and nurses studied on each ward and the type of data collected from each group

Ward	Number of Weeks	Control Patients (46)		Test Patients (52)		Nurses (80)	
		Ward Data	Home Interview	Ward Data	Home Interview	Heimler Scale	Interview
Orthopaedics	19	14	14	14	13	19	15
Gynaecology A	20	11	11	16	14	18	15
Gynaecology B	16	12	12	12	8	16	14
General Surgery	14	9	7	10	8	27	20
Totals	69	46	44	52	43	80	64

TABLE 3.6: Reasons why home interviews were not carried out

Ward:	Orthopaedics		Gynaecology A		Gynaecology B		General Surgery	
	Control	Test	Control	Test	Control	Test	Control	Test
Group:								Total
Patient developed a medical condition					1			1
Patient declined:								
(a) Intrusion into privacy			1			1		2
(b) Too tired			1					1
(c) Too upset by hospitalisation						1		1
(d) Reason unknown		1			3		1	6
Totals	0	1	0	2	0	4	2	11

WARD ENVIRONMENT

Differences between wards, existing prior to the implementation of the project, may have had a bearing on the care given to patients. These differences were beyond the control of the project, but they are mentioned here because they may have influenced the interaction between patients and staff, the ability and readiness of staff to provide pain relief and the ease with which the project was implemented. Differences observed fell into a number of categories.

Physical Environment

Patients studied on the orthopaedic ward and gynaecology ward A had their beds in small rooms with a maximum of seven patients to a room. Gynaecology ward B and the general surgery ward were not sub-divided, being of the traditional Nightingale type. A spontaneous remark from a third-year student nurse on gynaecology ward A is of interest in this connection: "It is easier to be empathetic in a smaller hospital. It's easier on this type of ward. You're not rushing around like you are on one of the big Nightingale-type wards". On a sub-divided ward with small rooms it is not possible to "rush around" while on a Nightingale ward, where a nurse can be observed by many patients and the rest of the staff, nurses may feel compelled to give the impression of bustling efficiency with consequent lack of patient contact. On the other hand, in an open ward, it is perhaps easier for a patient to attract a nurse's attention.

Transience of Staff and Bed Occupancy

Transience of staff and bed occupancy are both factors often mentioned by nurses as influencing the quality of patient care. The findings in relation to these two factors on the four wards are summarised in Table 3.7.

Bed occupancy was influenced by the industrial action of Health Service workers during the summer of 1982. This not only delayed the start of the gynaecology ward A module but also reduced patient turnover in both gynaecology wards by placing limitations on the numbers of operations surgeons could perform. While being a drawback to the project in that it caused delay, industrial action was in one sense fortuitous in that it resulted in implementation of the project in wards with different levels of occupancy, allowing comparison of pain relief between busy and slack wards.

The Extent of Individualised Care

Table 3.8 provides some indication of the extent to which patients were given care according to their individual needs rather than according to standard routines. It shows that efforts were being made by both the orthopaedic and general surgery wards to individualise nursing care. The additional records kept by these wards imply improved continuity of care, but it should be noted that even though the general surgery ward's care plan included a space for emotional assessment this was not being used.

TABLE 3.7: Transience of staff and bed occupancy on the four wards during the period of study. (Relief nurses who worked on each ward for less than one week are not included)

Ward	Staff			Beds	Average Bed Occupancy
	Permanent	Transient	% Permanent		
Orthopaedics	7	12	37	26 (female = 16)	Full
Gynaecology A	4	14	22	21	Less than half full
Gynaecology B	3	13	19	15	Half full
General Surgery	6	21	22	27 (acute = 16 convalescent = 11)	Full



TABLE 3.8: Patient records kept by the four wards

Ward	Nursing Kardex	Assessment of Daily Activities and Physical Needs	Care Plan
Orthopaedics	+	+	
Gynaecology A	+		
Gynaecology B	+		
General Surgery	+	+	+

Prescribing Policy

Table 3.9 summarises the responsibility for prescribing post-operative analgesia on the four wards. On the orthopaedic ward, the fact that the consultant anaesthetist did not always take responsibility for prescribing sometimes led to a delay in providing post-operative analgesia since another more junior doctor was not always on hand to write the prescription. On the gynaecology wards, the system seemed to be that the consultant anaesthetist always prescribed but a more junior doctor always re-prescribed because the anaesthetist's prescription was considered inadequate and nursing staff did not want to offend him by mentioning it since he was near retiring age. The consultant's prescription was therefore usually (by tradition) ignored. Although the policy differed from ward to ward, nursing staff generally accepted the prescription (or re-prescription) without question and interpreted the dose and time schedule rigidly. For example, if a prescription was written "4-hourly as necessary", nursing staff would usually expect a patient to wait until the

full four hours had elapsed before giving the next dose rather than request a new prescription that would allow for more frequent administration.

TABLE 3.9: Responsibility for prescribing post-operative analgesia for the first 24-48 hours

Ward	
Orthopaedics	Consultant Anaesthetist OR Junior Doctor
Gynaecology A	Consultant Anaesthetist AND Junior Doctor
Gynaecology B	Consultant Anaesthetist AND Junior Doctor
General Surgery	Consultant Anaesthetist ONLY

Table 3.10 lists the first post-operative analgesic prescriptions on the four wards to give some idea of the variation. While there may have been some slight differences between wards, the majority of the variation in prescribing occurred within the wards. For example, on the general surgery ward prescriptions for heroin ranged from 2.5 mg 6-hourly to 10 mg 3-hourly, an eight-fold difference.

The complete data on post-operative analgesic prescriptions were too complex to present here. Furthermore, their interpretation requires specialist medical knowledge. It is hoped that at some future date an analysis of this material will be made in collaboration with a consultant anaesthetist.

TABLE 3.10: First post-operative analgesic prescriptions
for control patients on the four wards

Ward	Analgesic	Dose	Minimum Interval between Doses	Number of Patients
Orthopaedics	Omnopon	10 mg	as required	2
		15 mg	3 h	1
		15 mg	4 h	4
	Heroin	5 mg	4 h	2
		5 mg	6 h	2
	DF118	60 mg	4 h	1
	Codeine	60 mg	5 h	1
		60 mg	6 h	1
	Total			14
Gynaecology A	Omnopon	15 mg	4 h	1
	Heroin	5 mg	3 h	2
		5 mg	4 h	1
		5 mg	6 h	5
		4 mg	6 h	1
		3.5 mg	6 h	1
	Total			11
Gynaecology B	Omnopon	15 mg	PRN (x2)	1
		15 mg	4 h	1
		10 mg	4 h	1
	Heroin	5 mg	PRN (x3)	5
		5 mg	4 h	4
	Total			12
General Surgery	Heroin	10 mg	3 h	1
		5 mg	3 h	4
		5 mg	4 h	2
		2.5 mg	3 h	1
		2.5 mg	6 h	1
	Total			9

Psychological Climate

During the first phase of each module some subjective impressions of the general psychological climate of each ward were noted.

On the orthopaedic ward there was a relaxed, friendly atmosphere. Nursing staff were on first name terms and there were no signs of regimentation of patients. Coffee was always offered to the author when arriving on the ward.

The atmosphere on gynaecology ward A was a little more formal but relationships seemed natural and friendly and there were no signs of regimentation of patients. Coffee was occasionally offered to the author.

On gynaecology ward B the atmosphere was very formal. There were signs of strained relationships between staff and some regimentation of patients. For example, patients were not allowed to lie on their beds and soft chairs were only available in a day room which was a smoking zone. A patient who wanted to relax in a smoke-free atmosphere therefore had to be content with a hard chair beside her bed on the ward itself. Coffee was never offered to the author.

On the general surgery ward the atmosphere appeared a little formal but very friendly and there were no signs of regimentation of patients. This was by far the busiest ward but the author was always welcomed and occasionally coffee was offered.

In day-to-day dealings with staff the relationship between the author and the charge nurse on each ward was most important. It was through the charge nurse that arrangements were made to

implement the teaching programme, and the attitude of the charge nurse towards the project could have influenced the receptiveness of other staff on the ward. The importance of the role of the charge nurse in facilitating learning in trainee nurses has been emphasised by Ogier (1981). The charge nurses on gynaecology ward A and the general surgery ward were spontaneous and open in their expression of happenings on the ward and were most enthusiastic about the project. The charge nurse on the orthopaedic ward was a little less open, although friendly, and perhaps a little less enthusiastic. The charge nurse on gynaecology ward B was not very open, kept contact with the author to a minimum, and was least enthusiastic about the project.

CHAPTER 4

FINDINGS IN RELATION TO

NURSE PARTICIPANTS

The findings in relation to nurse participants are reported and discussed in four sections: biographical data, the Heimler Work Orientation Schedule, the self-administered knowledge test and the main nurse questionnaire.

BIOGRAPHICAL DATA

The numbers of nurse participants in different age ranges are shown in Table 4.1.

TABLE 4.1: Age distribution of nurse participants

Age (Years)	N	%
18-20	44	55
21-30	22	28
31-40	5	6
41-50	5	6
51-60	4	5
Totals	80	100

Mean age of staff in the four nursing teams is given in Table 4.2. Analysis of variance showed that the variation for age between wards was significantly greater than that within wards. All but two of the nurses were female, both male nurses being in the orthopaedic team.

TABLE 4.2: Mean age of nurses on the four wards

	Orthopaedics	Gynaecology A	Gynaecology B	General Surgery	All Wards	Kruskal-Wallis 1-Way Analysis of Variance p
Number of nurses	19	18	16	27	80	
Mean age (years)	29.9	21.7	25.4	24.6	25.4	0.001

Only 25% of nurses were State Registered, 13% were Enrolled Nurses and one was a post-basic student (Table 4.3). In other words, less than half had completed their training.

TABLE 4.3: Numbers of nurse participants at different levels of seniority

	N	%
Charge nurses	4	5
Staff nurses	16	20
3rd year students	8	10
2nd year students	4	5
1st year students	18	22
Enrolled nurses	10	13
Pupil nurses	13	16
Nursing auxiliaries	6	8
Post-basic student	1	1
Totals	80	100

The mean number of months of surgical experience showed a significant difference between wards in line with the age difference, although there was no difference between teams for the mean number of months working on each of the study wards (Table 4.4)

TABLE 4.4: Mean number of months of surgical experience and mean number of months on present ward

	Orthopaedics	Gynaecology A	Gynaecology B	General Surgery	All Wards	Kruskal-Wallis 1-Way Analysis of Variance p
Number of nurses	19	18	16	27	80	
Surgical experience	51.1	18.2	32.4	28.8	31.1	0.002
Present ward	14.8	12.0	10.9	17.6	14.3	n.s.

Over all wards, 52% of nurses had personal experience of surgery (Table 4.5), with no difference between wards for this variable. Of those who had undergone surgery, 95% said they remembered the pain.

TABLE 4.5: Have you ever been in hospital?
(N = 80)

	%
Surgery	52
Other hospitalisation	10
No	38
Total	100

The fact that over half the nurses were in the 18-20 age group has implications for caring since it is unlikely that young nurses have had much experience of life let alone experienced much in the way of pain or suffering. In hospitals attached to training schools this is always likely to be the case because of the parallel commitments to apprenticeship and service. The apprenticeship system may be necessary for nurse education but, at the same time, it means that patients are exposed to unqualified care. Young unqualified nurses cannot reasonably be expected to act autonomously in caring for patients in pain.

None of the four teams was at a particular advantage in having worked together on their study ward for longer than any other. However, the orthopaedic team had most experience of surgical nursing while the team on gynaecology ward A had least.

HEIMLER WORK ORIENTATION SCHEDULE

The Heimler Work Orientation Schedule, 1970 ('Heimler Scale'; see Appendix IIIa) is an adaption of the Heimler Scale of Social Functioning (Heimler, 1975). It was used in this study to provide a general picture of the satisfactions and frustrations of staff rather than detailed information on responses to individual questions.

The Schedule is divided into three sections: a Satisfactions index, a Frustrations index and an Outlook on Life index. Each of the first two sections is sub-divided into five area indices, each containing five questions with "Yes", "Perhaps" or "No" responses scoring 4, 2 and 0 respectively. The maximum possible score for each area is therefore 20 and the maximum possible score for total Satisfactions or total Frustrations is 100. Accepted norms have been developed for interpretation of the scores (Bates, 1984) but these apply to Heimler's original scale. Norms for use with the Work Orientation Schedule are still being developed.

Fulcher (1983) has recently shown that total Satisfactions and total Frustrations scores are the most informative with teams but may be expected to be slightly above the original norms for two reasons. First, the original norms were developed for use in a therapeutic rather than employment setting and, second, the scores used for interpretation of the Heimler Scale of Social Functioning are total scores that have been adjusted downwards to take account of the different numbers of "Yes" and "Perhaps" responses of which they are composed. Using the original norms,

a Satisfaction score of 60 upwards indicates ability to function adequately in the present situation. Scores of 60-72 indicate adequate functioning with existing support, while scores of 72-79 represent normal functioning. Scores of 83-85 are considered to be in the upper range of normal, while 88 and above is regarded as unrealistic. At the other end of the scale, scores of 36-60 indicate the need for additional support while scores below 36 indicate inadequate functioning, possibly requiring institutional care. Scores for the Frustrations index are interpreted in relation to those of the Satisfaction index. A normal total Frustrations score would be one-third to one-fifth of the total Satisfaction score. The five Outlook on Life questions are each scored on a 20-point scale, again making a maximum possible total of 100. Satisfaction and Frustration scores are listed in Table 4.6 and Outlook on Life scores are given in Table 4.7.

The areas of greatest satisfaction for all teams were Home Life and Social Life. The contribution of these two areas to the overall satisfaction score emphasises the importance of gaining satisfaction outside work and has implications for the planning of work rotas. The area of lowest satisfaction was Finance, followed by Personal Contract. The low scores for Finance highlight the economic position of nurses and may be responsible, in part, for the low Personal Contract scores. It should be noted that 1982 was a year of particular financial unrest within the profession and many of the nurses were being interviewed just before, during or after the period of industrial action by Health Service workers over pay. Satisfaction at Work were intermediate between the two extremes.

TABLE 4.6: The mean score per team and total sample of nurses in terms of areas of satisfaction and frustration assessed using the Heimler Work Orientation Schedule

	Orthopaedics (N = 19)	Gynaecology A (N = 18)	Gynaecology B (N = 16)	General Surgery (N = 27)	Total (N = 80)	Kruskal-Wallis 1-Way Analysis of Variance p
<u>Satisfactions</u>						
Work	16.00	17.44	17.12	17.40	17.02	n.s.
Finance	13.89	14.55	11.62	13.77	13.55	n.s.
Social Life	17.89	18.22	18.25	18.29	18.17	n.s.
Home Life	18.42	18.77	18.87	18.51	18.62	n.s.
Personal Contract	16.10	16.55	15.00	16.07	15.97	n.s.
Totals	82.30	85.53	80.86	84.04	83.33	n.s.
<u>Frustrations</u>						
Activity	4.21	4.11	5.00	5.11	4.65	n.s.
Health	4.00	4.11	3.12	3.48	3.67	n.s.
Influences	6.31	6.22	8.75	5.48	6.50	0.05
Moods	4.63	4.88	5.75	5.33	5.15	n.s.
Habits	4.84	3.44	4.87	3.33	4.02	n.s.
Totals	23.99	22.76	27.49	22.73	23.99	n.s.

The highest scores in the Frustrations index were in the areas of Personal Influences. This may be the result of nurses working in a hierarchical system where there is traditionally little freedom for them to make decisions on their own initiative.

For the Outlook on Life section (Table 4.7), question (a), relating to achievement of ambition, showed the lowest overall mean score. Since achievement of ambition may be reflected in financial gain and relationships with others, this low score is consistent with the low Satisfaction scores in the areas of Finance and Personal Contract and with the high Frustrations score found for Personal Influence. Question (d), relating to opportunity for self-expression, showed the next lowest overall score. The pattern of scores for these two questions was consistent between teams except on the general surgery ward where opportunity for self-expression scored lower than achievement of ambition.

Perhaps the most interesting overall indication of Outlook on Life was in the relationship of scores for question (b) (Hopeful for the future) to those for questions (c) and (e) (Life has meaning, Life worth the struggle). When these scores are compared it seems that the nurses had little hope for themselves relative to the meaning they gave to their lives and the struggle it involved. This result has relevance for their work as carers because nurses may need to convey hope to their patients. It also suggests that nurses' emotional energy may be drained by the demands of their work and is consistent with the findings of Menzies (1970), who stressed the need for nurses' social and

psychological satisfactions. Proffit (1982) has drawn attention to the fact that nurses are particularly prone to "burnout" because of their high ideals and the demands of their work. There is clearly a need for further research into the importance of meeting nurses' own needs if they are to care effectively for others.

Analysis of variance disclosed statistically significant differences between wards for two of the scores: Influences (Frustrations) and Life has meaning (Outlook on Life). The only consistent pattern for total mean scores suggesting a difference between wards was for gynaecology ward B which showed the lowest Satisfactions, the highest Frustrations and the lowest Outlook on Life, perhaps reflecting the climate of regimentation and strained relationships encountered on the ward (see Chapter 3). However, the overall picture indicates that the Satisfactions and Frustrations of the teams were balanced.

TABLE 4.7: The mean score per team and total sample of nurses for each question in relation to Outlook on Life from the Heimler Work Orientation Schedule

	Orthopaedics (N = 19)	Gynaecology A (N = 18)	Gynaecology B (N = 16)	General Surgery (N = 27)	Total (N = 80)	Kruskal-Wallis 1-Way Analysis of Variance p
(a) Achieving ambition	14.36	13.22	11.50	13.33	13.18	n.s.
(b) Hopeful for the future	15.94	14.88	15.56	15.37	15.43	n.s.
(c) Life has meaning	18.57	16.72	15.81	16.37	16.86	0.04
(d) Opportunity for self-expression	15.10	13.88	13.68	12.88	13.80	n.s.
(e) Life worth the struggle	17.84	16.27	16.75	17.44	17.13	n.s.
Totals	81.81	74.97	73.30	75.39	76.40	n.s.

SELF-ADMINISTERED KNOWLEDGE TEST

The results of the self-administered knowledge test, expressed as mean scores before and after the educational programme on each ward, are given in Table 4.8. The maximum for each mean score was +12 and the minimum -12. Scores for all wards improved after the educational programme. The general surgery and orthopaedic wards showed the greatest improvements, both of which were statistically significant, but this was perhaps not surprising since these wards had low pre-education scores. The smallest improvement was for gynaecology ward B. The rank order of ward scores was the same before and after the programme: gynaecology ward A (highest), gynaecology ward B, general surgery, orthopaedics (lowest). In many cases nurses may have felt somewhat rushed when completing the post-education test since they were on duty at the time. The test was given more to reinforce some of the important concepts discussed during the programme than to assess the effectiveness of the educational package.

TABLE 4.8: Results of self-administered knowledge test for the 46 nurses who attended discussions and completed the test before and after the educational programme. (The 12 answers were scored as +1 (correct), 0 (don't know) or -1 (incorrect)).

Ward	N	Mean Score		Wilcoxon Matched-Pairs Signed-Rank Test p
		Before	After	
Orthopaedics	12	4.58	6.83	2.25
Gynaecology A	10	6.70	8.40	1.70
Gynaecology B	8	6.63	7.50	0.87
General Surgery	16	4.81	7.38	2.57
				<0.05
				n.s.
				n.s.
				<0.01

THE MAIN NURSE QUESTIONNAIRE

The results of the main nurse questionnaire, designed to collect information about nurses' knowledge, beliefs and values, are considered under eight headings:

- (a) Use of time.
- (b) Patient variation.
- (c) Views about patients in pain.
- (d) Behaviour in relation to patients in pain.
- (e) Knowledge of analgesic drugs and other therapies.
- (f) Nurses' opinions about their knowledge.
- (g) Aspects of communication.
- (h) Opinions about practice.

Use of Time

Time spent discussing patient care with colleagues and talking to patients is an important part of nursing. Responses to questions about the use of time are summarised in Table 4.9. The "Yes" and "Perhaps" responses are combined because it was felt during analysis that a simple "Yes" or "No" answer would have been more appropriate. Using this method of analysis, 71% of nurses felt they had enough time for teaching patients and 76% felt they had time for teaching/learning about nursing. However, only 55% said they had time for talking to patients. This may reflect a lower priority among nurses for talking to patients than for talking to each other. On the other hand, there may have been some confusion since the question did not specify

whether talking to patients meant chatting or more formal professional contact. It may be that nurses considered some of their interactions with patients did not have relevance for patient care and therefore did not feel they were being referred to in the question. The prospects for continuity of care, particularly pain relief, are poor if, as indicated, only rather more than half of the nurses (56%) felt they had enough time for talking to each other about patient care. The lowest figure of 44%, for those who felt they had enough time for professional reading, was not unexpected but the response does indicate that nurses recognise this deficiency.

One general point should be mentioned here, namely that "enough time" may not simply be a matter of time alone, perhaps reflecting motivation and various factors in the ward environment.

TABLE 4.9: Do you feel you have enough time at work for

	N				%
	Yes	Perhaps	No	Total	
Talking to patients?	17	18	29	64	55
Talking to staff about patient care?	17	19	28	64	56
Library/reading?	8	20	36	64	44
Teaching patients?	19	23	17	59	71
Teaching/learning?	21	24	14	59	76

Patient Variation

Nurses' views of patients' individuality in relation to pain are given in Tables 4.10 to 4.12.

Table 4.10 shows that a high proportion of nurses (67%) had expectations as to the time taken for patients to become mobile after an operation, although a higher proportion (86%) did not have expectations about the amount of pain a patient might experience. Only 58% felt that personality could influence pain relief requirements.

TABLE 4.10: Nurses' appreciation of patients' individuality in relation to pain (N = 64)

	Per cent		
	Yes	No	Don't know
In your experience have you found that patients who have undergone the same operation are expected to take the same time to be up and about?	67	32	1
In your experience do patients undergoing the same operation experience about the same amount of pain?	11	86	3
Do you feel that there are any aspects of a patient's personality which could influence pain relief requirements?	58	9	33

Nurses acknowledged that a number of factors can influence a patient's readiness to ask for analgesics (Table 4.11). Highest on the list were pre-operative information (56% indicating that this was a good thing) and previous surgery (although it was not

clear whether nurses felt that patients who had experienced previous surgery would be less willing to suffer pain or better able to tolerate it). Next came age (although there were conflicting views as to how this would influence the patient), ethnic/cultural background, social class and prior knowledge (as would apply if the patient were a nurse or a doctor). Of the 34% of nurses who felt that a patient's sex would influence readiness to ask for analgesics, the overriding opinion was that female patients would be more ready to ask. Nurses generally felt that, of various factors listed, only age and sex might influence a patient's ability to tolerate pain (Table 4.12).

Most nurses did not expect all patients who had undergone the same operation to experience the same amount of pain. However, many nurses failed to appreciate that personality can influence pain relief requirements. The interest of findings shown in Table 4.11 lies in the extent to which nurses regard seeking of analgesia to be a responsibility of the patient rather than unsolicited provision of analgesia to be their own. From a patient's point of view, it would be reasonable to expect that when one is ill or in pain, those caring know what to do and are responsible. It could be that values of staff in relation to provision of pain relief do not meet the needs of patients. In this respect, it was interesting to note a conflict of values in connection with goals for pain relief between nurses and patients as shown later in this chapter (Table 4.33).

TABLE 4.11: In your experience do you feel that any of the following factors influence a patient's readiness to ask for painkillers? (If yes, what would make a patient more ready to ask?) (N = 64)

	% Response		
	Yes	No	Don't Know
Age	58 (Old 17, Young 41)	31	11
Sex	34 (Males 3, Females 31)	38	28
Social class	41 (Upper 2, Middle 30, Working 9)	52	7
Season	11 (Summer 2, Winter 9)	70	19
Marital status	8 (Single 2, Married 4, Divorced 2)	73	19
Pre-operative information	69 (With information 49)	11	20
Prior knowledge	41 (i.e. Nurse or doctor)	39	20
Previous surgery	59 (Had previous surgery 52)	19	22
Ethnic/cultural background	44 (Specified groups 37)	19	37

The interpretation of the results shown in Table 4.12 is a little difficult insofar as they could be taken to indicate failure of nurses to acknowledge that certain groups of patients may be more likely to react to pain in a particular way and therefore that nurses might be blind to the possibilities of individual variation. On the other hand, because it is not possible to predict who will suffer most it might be more appropriate to regard "Don't Know" responses as the most correct ones since this could be taken to imply lack of prejudice on the part of the nurse when faced with an individual patient. As far as the opinions about age are concerned, it is interesting that nurses tended to regard young patients as being less well able to tolerate pain. There is no conclusive evidence for this but, if it is a widely held view, it could lead to unconscious withholding of analgesia from the elderly. Only one-third of the respondents thought that sex can influence pain tolerance but the opinion was overwhelmingly in favour of females being less well able to tolerate pain. This view may put males at a disadvantage in terms of analgesia provided for them in the clinical situation. The possibility of an age and sex bias in the provision of analgesia has already been noted by Pilowski and Bond (1969), as discussed in Chapter 2.

TABLE 4.12: In your experience do you feel that any of the following factors influence a patient's ability to tolerate pain? (If yes, what would make a patient less able to tolerate pain?) (N = 64)

	% Response		
	Yes	No	Don't Know
Age	64 (Old 19, Young 45)	25	11
Sex	33 (Males 5, Females 28)	39	28
Social class	19 (Upper 2, Middle 11, Working 6)	60	21
Season	8 (Winter)	73	19
Marital status	6 (Single 4, Divorced 2)	78	16
Pre-operative information	6 (Less able to tolerate if had)	77	17
Prior knowledge	11 (Less able to tolerate if nurse or doctor)	55	34
Previous surgery	3 (Less able to tolerate if had)	72	25
Ethnic/cultural background	34 (Specified group 29)	31	35

Views about Patients in Pain

Nurses' management of patients in pain may be related to the readiness of staff to accept a patient's description of his own pain and the extent to which nurses value stoicism. A high proportion of nurses (80%) thought that patients sometimes exaggerate pain (Table 4.13), while almost as many (75%) said they admired someone with willpower (Table 4.14). These views could undoubtedly hamper the effective relief of pain in hospital, highlighting the need for a greater understanding by nurses of the principles underlying the individual nature of pain and for the assessment of pain with patients. As Teske et al. (1983) have pointed out, there is no good reason to believe that nurses' observations of patients' behaviour provide better or worse measures of pain than patients' own reports of their pain.

TABLE 4.13: Do you feel that patients sometimes exaggerate pain?

	N	%
Yes	51	80
No	7	11
Don't know	6	9
Totals	64	100

TABLE 4.14: Do you admire someone with willpower?

	N	%
Yes	48	75
No	14	22
Don't know	2	3
Totals	64	100

Behaviour in Relation to Patients in Pain

Nurses' reporting of their behaviour in relation to patients in pain is summarised in Tables 4.15 to 4.22.

A high proportion of nurses (66%) did not normally discuss post-operative pain relief with patients before surgery (Table 4.15). This indicates lack of awareness of research findings in relation to relief of anxiety and/or reluctance to accept nursing responsibility in this area. An additional finding (not tabulated) was that 94% of nurses agreed that someone should discuss this aspect of care with patients. The most frequent reason given for not discussing pain relief with patients before surgery was lack of time (Table 4.16), although, after further probing, 86% suggested that it was indeed a nursing responsibility. This finding may reflect the lack of knowledge among nurses as to what patients should be told. However, making known the single fact that pain relief will be available may well relieve anxiety for many patients.

TABLE 4.15: Do you normally discuss post-operative pain relief with patients pre-operatively? (2 missing responses)

	N	%
Yes	9)	
) 21	34
Sometimes	12)	
No	41	66
Totals	62	100

TABLE 4.16: Why do you act the way you do in relation to discussing post-operative pain relief with patients pre-operatively?

	N	%
No time	11)	
Not my responsibility	8)	
Never told to	6)	35
Never thought about it	5)	55
Too junior	5)	
People are anxious	10)	
Because it's important	1)	12
For major operations only	1)	19
Irrelevant answer/no answer	17	26
Totals	64	100

As many as 56% of nurses would wait for a patient to request analgesia on the first post-operative day (Table 4.17). On the other hand, only 5% regarded a request by a patient as the most important factor when deciding whether or not to administer analgesia (Table 4.18). These conflicting results suggest that there might be some confusion in the minds of nurses as to where the responsibility for ensuring effective analgesia lies. However, if a patient has not been told that analgesia are available, she may wait assuming that, for some reason, she is not allowed it.

TABLE 4.17: Generally speaking, with post-operative patients on the first post-operative day, if an analgesic is ordered on a P.R.N. basis do you feel it should be given -

	Yes	
	N	%
Every 4 hours?	4	6
Every 3 hours?	1	2
Would you check to see if it was needed?	19	30
Would you wait for the patient to request it	36	56
Don't know	4	6
Totals	64	100

TABLE 4.18: What factors do you feel should be considered when deciding whether or not to give analgesics to a patient? (Only the factors first mentioned by each nurse are listed)

	N	%
Severity of pain	20	31
Time since last dose	15	23
Nature of prescription	4	6
Blood pressure	4	6
Agitation of patient	3	5
Request by patient	3	5
Type of operation	3	5
Patient's state of mind	1	2
Patient's age	1	2
Don't know	10	15
Totals	64	100

The responses of nurses to two situational vignettes are presented in Tables 4.19 and 4.20. The first asked the nurses what they would be inclined to do if confronted with a patient experiencing particularly severe pain. All respondents said they would discuss the problem with either nursing or medical colleagues but, on the other hand, only 6% said they would discuss the problem with relatives of the patient. This finding may give some indication of the extent to which nurses feel that patients are the "property" of the hospital and of the fact that nurses may fail to be aware of the importance of family ties in

supporting patients in pain. About two-thirds of nurses (65%) were willing to discuss the situation with the patient but, unfortunately, respondents were not asked to elaborate on what might be discussed (belief of the patient and positive encouragement or disbelief and denial of relief). Since the question was concerned with ineffectiveness of an analgesic it was interesting to note that 78% of nurses would not have consulted the British National Formulary or Mims, copies of which were available on all wards. This response reflects disinclination on the part of nurses to take action in finding out if the situation could be improved and is unrealistic since nurses cannot expect medical staff to be on hand all the time.

Responses to the second situational vignette (Table 4.20) showed that only 14% of nurses would have been inclined to give an analgesic immediately it was required, while 75% would have questioned the severity of the pain, questioned the immediate need for an analgesic or encouraged the patient to wait. Patients in pain may thus be denied relief both if they are "well behaved" (since they do not appear to be suffering) and if they make their pain known as forcibly as possible (since they may be accused of exaggeration - Table 4.13).

TABLE 4.19: If an analgesic appears to be ineffective and a patient is experiencing particularly severe pain, what would you be inclined to do? (N = 64)

	Per Cent Responses		
	Yes	No	Don't Know
Discuss the problem with the patient	65	29	6
Discuss the problem with the patient's relatives	6	88	6
Discuss the problem with nursing/medical colleagues	100	0	0
Consult the British National Formulary or Mims	22	78	0

TABLE 4.20: A 55 year old lady has undergone abdominal hysterectomy (or forefoot operation or cholecystectomy). She requests painkillers on her third post-operative day. She is sitting in a chair knitting and looks at ease. Which of the following actions would you be inclined to take first? (1 missing response)

	N	%
Question severity of pain	29)	
Question immediate need for painkillers	11)	47
Encourage patient to wait	7)	75
Try other methods of pain relief	7	11
Give painkillers at once	9	14
Totals	63	100

Eighty per cent of respondents denied any awareness of a difference in their personal response to pain in patients of different cultural backgrounds (Table 4.21). The interpretation of this result is again rather difficult (as it was for Table 4.12) since it is not clear whether it implies failure to recognise the influence of cultural factors on a group/population level or lack of prejudice when confronted by an individual patient.

TABLE 4.21: Are you aware of any difference in your personal response to pain in patients of different cultural backgrounds? If so, might this affect your management of a patient's pain?

	N	%
Yes (affect management)	8 (5)	12 (8)
No	51	80
Don't know	5	8
Totals	64	100

The different ways in which nurses might become alerted to a patient's pain are listed in Table 4.22. Verbal cues were most often used. The interpretation of this result is difficult since the question did not distinguish between a nurse asking a patient if she was in pain, eliciting a response, or if the verbal cue was a spontaneous request by a patient for relief, accompanied by crying or moaning. In the light of the previous findings, however, it seems likely that nurses would be more inclined to wait for a spontaneous verbal cue from a patient.

TABLE 4.22: How are you yourself alerted to patients' pain post-operatively? (Alternatives are not mutually exclusive). (N = 64)

	Yes	
	N	%
Verbal cues	56	88
Non-verbal cues	55	86
Physiological signs	19	30
Other	11	17
Don't know	1	2

Knowledge of Analgesic Drugs and Other Therapies

Correct answers to the test of knowledge of analgesic drugs are listed in Table 4.23. These were derived from the British National Formulary (1983) and personal communication with a consultant anaesthetist and a consultant in charge of a hospice. A high proportion of nurses knew the potency of aspirin, morphine, pethidine and diamorphine hydrochloride. Very few knew the potency of phenazocine or diflunisal. There was a tendency to underestimate the duration of action of most of the weaker analgesics (aspirin, paracetamol, mefenamic acid, codeine phosphate) and to over-estimate the duration of action of the stronger analgesics (pethidine, diamorphine hydrochloride). An exception was morphine, where the duration of action tended to be underestimated. Very few knew the duration of action of phenazocine or diflunisal. These responses can be seen in Table 4.24.

TABLE 4.23: Correct answers to questions on potency and duration of action of various analgesic drugs. (From British National Formulary (1983) and personal communication with a consultant anaesthetist and a consultant in charge of a hospice).

Drug	Potency	Duration
Aspirin (oral)	Weak/Medium	4 hours
Morphine (intramuscular)	Strong	4 hours
Phenazocine (Narphen - oral)	Strong	4-6 hours
Diffenunisal (Dolobid - oral)	Weak/Medium	12 hours
Pethidine (intramuscular)	Strong	3 hours
Paracetamol (oral)	Weak	4-6 hours
Diamorphine hydrochloride (Heroin - intramuscular)	Strong	3 hours
Mefenamic acid (Ponstan - oral)	Weak/Medium	6 hours
Papaveretum (Omnopon - intramuscular)	Strong	4 hours
Dihydrocodeine tartrate (DF118 - oral)	Medium	4 hours
Codeine phosphate (oral)	Weak/Medium	4 hours
Pentazocine (Fortral - oral)	Medium/Strong	3-4 hours

TABLE 4.24: Responses of nurses to questions on potency and duration of action of various analgesic drugs. (N = 64, correct answers listed in Table 4.23).

Drug	Potency: % Correct	Duration: % Responses			
		Correct	Underestimate	Over-estimate	Don't Know
Aspirin (oral)	95	8	75	3	14
Morphine (intramuscular)	91	28	45	13	14
Phenazocine (Narphen - oral)	8	2	3	0	95
Diflunisal (Dolobid - oral)	8	0	6	0	94
Pethidine (intramuscular)	80	28	9	41	22
Paracetamol (oral)	42	16	70	0	14
Diamorphine hydrochloride (Heroin - intramuscular)	92	19	8	54	19
Mefenamic acid (Ponstan - oral)	66	6	69	0	25
Papaveretum (Omnopon - intramuscular)	67	28	36	6	30
Dihydrocodeine tartrate (DF118 - oral)	44	16	47	12	25
Codeine phosphate (oral)	70	9	52	5	34
Pentazocine (Fortral - oral)	48	33	2	4	61

Forty two per cent of respondents did not know of any factors that might be taken into account when determining the length of time that an analgesic will last, while 39% mentioned patient-related factors (Table 4.25).

TABLE 4.25: Are there any factors you know of which might be taken into account when determining the length of time that an analgesic will last. (Only first mentioned factors are listed).

	N	%
Don't know	27	42
Patient Factors { Patient's pain threshold	9)	
{ Size of patient	9)	
{ Personality of patient	4)	25
{ Age of the patient	3)	39
Type of operation	4	6
Potency of analgesia	3	5
Miscellaneous comments	5	8
Totals	64	100

Response to a third situational vignette, relevant to the question of duration of action of analgesic drugs, is given in Table 4.26. Although the duration of action of intramuscular pethidine is generally agreed to be about 3 hours, nurses should be ready to accept that the requirements of individual patients may vary. The majority of nurse respondents were not ready to do this, most of these nurses saying that pethidine was a strong drug and should not have been repeated.

TABLE 4.26: A patient states she is having pain two hours after having an intramuscular injection of Pethidine (100 mg) on the first post-operative day. The nurse in charge of the ward encourages her to hold out a little longer. How do you feel about the nurse's action?

	N	%
Agree/Strongly agree	41	64
Disagree/Strongly disagree	19	30
No opinion	4	6
Totals	64	100
Reasons for above responses:-	N	%
Strong drug, not to be repeated	31)	
Next dose not due) 35 4)	55
Patient should be believed/pain should be relieved	17)	
Short acting drug) 18 1)	28
Miscellaneous/no comments	11	17
Totals	64	100

There was a lack of knowledge among nurse respondents regarding the use of anti-emetics with morphine. Almost half the nurses would rather have denied the patient morphine's important pain relieving properties than have tried to improve the situation through the use of an anti-emetic drug (Table 4.27).

TABLE 4.27: Given a situation where a patient develops nausea and vomiting after the first few doses of morphine, do you feel that the drug should be discontinued?

	N	%
Yes, because:		
This is a reaction to the drug	22)	47
You can substitute the drug	8)	
	30	
No, because:		
You can give an anti-emetic	23	36
No comment	11	17
Totals	64	100

Nurses did not appear to be overly concerned about the possibility of inducing addiction in patients as a result of administering analgesic drugs or medications (Table 4.28). This finding was of interest in the light of previous work (cited in Chapter 1) that pointed to an unwarranted fear among nursing staff of inducing addiction. This response may be related to other findings, already mentioned, indicating that the nurses were not generous in their administration of narcotic analgesics. If nurses allow only small amounts of narcotics to be administered it is understandable that they should not be concerned about the possibility of addiction.

TABLE 4.28: What proportion of post-operative patients do you feel might become addicted to analgesia or medication?

	N	%
Large/moderate proportion	7	11
Small proportion	21	33
Very small proportion/none	36	56
Totals	64	100

A majority of nurse respondents (70%) did not know of any pain therapies other than analgesic drugs (Table 4.29). This lack of knowledge, together with the considerable room for improvement in nurses' use of analgesic drugs themselves, indicates that there are serious gaps in nurse education, particularly in connection with the relief of pain.

TABLE 4.29: Nurses' knowledge of pain therapies other than analgesic drugs

	N	%
No knowledge of other therapies	45	70
Knowledge of one other therapy	13	20
Knowledge of two other therapies	2	3
Knowledge of three other therapies	1	2
Knowledge of more than three other therapies	3	5
Totals	64	100

Nurses' Opinions about Their Knowledge

Nurses' opinions about their knowledge and training in relation to pain relief are set out in Table 4.30. What is most striking is that 90% of respondents felt that the ward was the primary source of information. This is disturbing in view of the findings of Short (1978) who concluded that charge nurses expect teaching about pain to be done in the school of nursing. The inconsistency of these two points of view perhaps explains why so little teaching in relation to pain relief actually takes place. In spite of this, the majority of nurse respondents felt they had a moderate degree of knowledge, although more than half the total said they would have liked to be more competent in relieving pain and 75% would have liked more training in this aspect of care. In relation to the specific topics listed in Table 4.30, respondents' use of "some" was found after subsequent probing to include anything from a passing mention to a two-hour lecture.

TABLE 4.30: Nurses' opinions regarding their knowledge and training in relation to pain

		%
Ward as the primary source of knowledge		90
Self-rating of knowledge	- high	5
	moderate	62
	low	33
Self-rating of competence	- competent	12
	adequate	27
	would like to be better	61
Theory in training regarding:		
The use of analgesics	- some	73
	none	27
Theoretical basis of pain relief	- some	19
	none	81
Psychological aspects of pain	- some	50
	none	50
Cultural aspects of pain	- some	16
	none	84
Pain assessment	- some	14
	none	86
Methods of pain relief other than analgesia	- some	19
	- none	81
Opinion regarding training	- well prepared	14
	would have liked more	75
	badly prepared	11

Aspects of Communication

Information on two aspects of communication that might influence pain relief is presented in Tables 4.31 and 4.32. About two-thirds of nurse respondents (68%) sometimes felt themselves at odds with the doctor's judgement (Table 4.31), while constraints of the prescriptive framework, difficulties of assessment with the patient and poor communication between staff were all regarded as possible sources of difficulty in providing pain relief (Table 4.32). These sources of difficulty were mentioned in response to an open-ended question.

It should be noted that not all nurses interviewed were in a position in the hierarchy where they could communicate their feelings to medical staff. For those who were, such as charge nurses, staff nurses, enrolled nurses or senior learners, many of the difficulties in communication may be accounted for by lack of knowledge about pain and the fact that post-operative pain was not assessed formally on a regular basis, resulting in lack of responsibility and accountability.

TABLE 4.31: Do you at times find yourself disagreeing with doctors' judgement?

Number of Responses			Total	Per Cent Yes/Perhaps
Yes	Perhaps	No		
30	11	19	60	68

TABLE 4.32: What do you feel are the main problems that nurses encounter in relation to relieving pain?

	N	%
Constraints of prescription	16	25
Difficulties of assessment	14	22
Lack of knowledge	11	17
Communication between staff	9	14
Don't know	14	22
Totals	64	100

Opinions about Practice

All the factors already discussed in previous sections influence the practice of pain relief as it is carried out on hospital wards. The responses to a number of questions asking nurses for their opinions about practice are summarised in Tables 4.33 to 4.37.

Only 9% of nurse respondents felt that post-operative pain should be completely relieved (Table 4.33). This implies that the nurses did not regard complete pain relief as a major therapeutic goal, consistent with the findings of Cohen (1980), even though 79% thought pain should be relieved "as much as possible". Three per cent of nurses considered that post-operative pain should be relieved only to the point where it can just be tolerated. Patients' responses to a similar question asked at the home interview are listed in Table 4.33 for comparison. Patient responses showed a wider spread over the four categories

than those of nurses, implying a degree of incongruence of values between nursing staff and patients.

TABLE 4.33: Nurses: What do you feel is the overall aim of administering analgesics during the first two post-operative days? Patients: What do you consider the ideal goal for pain relief after an operation? (No statistical test carried out because of differences in wording of questions to nurses and patients)

	Nurses		Patients	
	N	%	N	%
To relieve pain completely	6	9	24	28
To relieve pain as much as possible	50	79	33	38
*To relieve pain just enough for the patient to function	6	9	23	26
To relieve pain to a level where the patient can just tolerate it	2	3	7	8
Totals	64	100	87	100

* Wording slightly different for patients

Regular doses of analgesia were not offered on any of the wards, drug administration being left to the discretion of the nurse in charge of the ward (Table 4.34). In the absence of any formal system of pain assessment with patients, this discretion could be used positively or negatively. Findings summarised in previous tables may point towards the latter. Despite the nature of practice, 22% of respondents favoured regular administration of analgesia. However, in such situations pain assessment would be important in relation to the intervals at which medication had been prescribed.

TABLE 4.34: On your ward how do patients generally receive analgesia and which method do you prefer?

	On Ward		Preference	
	N	%	N	%
In regular doses (say on a 4-6 hourly basis) for the first few days post-operatively	0	0	14	22
Whenever necessary at the discretion of the nurse in charge of the ward, working from a P.R.N. prescription	54	84	43	67
Don't know	10	16	7	11
Totals	64	100	64	100

The question of nurses' discretion is raised again by the finding that 77% of respondents said that nursing staff should be allowed to decide whether to administer a mild analgesic without prescription (Table 4.35). However, it was noted in relation to Table 4.24 that nurses tended to underestimate the duration of action of mild analgesics, the implication being that they might be over-generous in their administration of these drugs.

TABLE 4.35: Do you feel that trained nurses should be allowed to decide whether to give a patient a mild analgesic - say Panadol or Aspirin - without prescription?

	N	%
Yes	49	77
No	9	14
Don't know	6	9
Totals	64	100

Only 20% of nurses said that analgesia would be given at once if requested by a patient (Table 4.36). The question of nursing responsibility in relation to pain relief is a serious one. It may be that, because nurses do not have authority in the planning of analgesia, they are reluctant to use what autonomy they do have in the administration of drugs that have been prescribed.

TABLE 4.36: (In relation to Table 4.20) Which attitude do you feel would be the most often practiced on the ward in similar circumstances?

	N	%
The severity of pain would be questioned	24)	
The immediate need for painkillers would be questioned	7)	
The patient would be encouraged to wait	7)	40
The patient would be encouraged to go without	2)	63
Other methods of pain relief would be tried	2	3
The painkillers would be given at once	13	20
Don't know	9	14
Totals	64	100

Fewer than half the respondents did not favour the use of placebos for the treatment of post-operative pain. However, the 33% who did were unable to indicate that they felt pain was real for the patient (Table 4.37). Misconceptions about placebos may have an adverse affect on patient care. The responses of nurses indicate that they may not have realised that a positive placebo effect cannot be used to diagnose pain as psychogenic rather than somatogenic.

TABLE 4.37: Do you feel that there is a place for the use of placebos (pretend analgesia) in the treatment of post-operative pain?

	N	%
Yes, because:-		
Pain could be psychological	11)	
Can be used to see if pain is genuine	6)	
Medications are bad	3)	21
Patient could be attention seeking	1)	33
No	30	47
Don't know	13	20
Totals	64	100

CONCLUSION

The responses to the nurse questionnaire indicate that pain relief is not generally seen as a priority by nurses. The results provide support for the opinion of White (1985) that:

"General nurse training taken in a hospital setting provides neither the skills nor the environment for satisfactory pain management".

This situation may have come about through a failure to identify educational priorities. An objective record was not kept of the post-interview comments made by nurse participants. However, the majority of nurses made remarks like, "I've never thought about it before" or "It makes you think", indicating, first, that the problem had not previously been brought to their attention and, second, that the interview itself had stimulated an awareness of

the importance of pain control. The findings are therefore consistent with those of previous studies and clearly show that there is an urgent need for nurses to increase their knowledge and awareness of pain and its management.

It was against the background described in this chapter that the educational programme was implemented. However, due to constraints of time and the nature of the design, the nurse data were not analysed prior to the implementation of the educational programme.

CHAPTER 5

FINDINGS IN RELATION TO

PATIENT PARTICIPANTS

The findings in relation to patient participants are reported under four headings: biographical data; pain intensity and duration and analgesics administered; the extent to which patients felt cared for in terms of pain relief; and patient anxiety in relation to future hospitalisation.

For the most part the findings are presented in terms of comparisons between test and control patients over all wards. Where differences between wards were found, these are explained in the text or shown in the relevant tables. The rationale behind presenting the results in this way, rather than for each ward separately, lies in the fact that for the educational programme to be generally acceptable, practicable and effective, it must be shown to transcend differences between patients, nurses and wards.

For all patient variables not specifically mentioned in this chapter no statistically significant differences were observed between test and control patients.

BIOGRAPHICAL DATA

The numbers of patients by type of operation in the control and test groups on each ward have already been shown in Table 3.1. Analysis of variance showed that the variation in age between the eight groups of patients (control and test on each ward) was significantly greater than that within groups ($p < 0.01$ by Kruskal-Wallis 1-way analysis of variance). Mean ages for the eight groups are shown in Table 5.1.

TABLE 5.1: Mean age of patients in the control and test groups on each ward

	Orthopaedics		Gynaecology A		Gynaecology B		General Surgery		Total
	Control	Test	Control	Test	Control	Test	Control	Test	
Number of patients	14	14	11	16	12	12	9	10	98
Mean age (years)	41.9	63.4	40.5	48.2	49.2	61.3	54.3	57.7	51.9

Age differences between groups were expected as a result of extending the age range in the middle of the project (as discussed in Chapter 3). The mean age of test patients was 11.3 years greater than that of controls, although this difference was not statistically significant (Table 5.2).

TABLE 5.2: Mean age of control and test patients (significance of difference calculated by Mann-Whitney U-test)

	Control	Test	p
Number of patients	46	52	
Mean age (years)	45.9	57.2	n.s.

Analysis of variance revealed no statistically significant differences between the eight groups of patients in terms of nationality, social class or number of children. Social class was classified by occupation in accordance with the Office of Population Censuses and Surveys Classification of Occupations (1980). The distribution of patients by nationality, social class and number of children is shown in Table 5.3. Within wards there was no significant difference between test and control patients in terms of type of operation. However, there appeared to be a difference in the distribution of religious practice between control and test patients, particularly in terms of practicing Protestants. Among control patients, 27%, while among test patients 49% were practicing Protestants. This difference just failed to reach statistical significance (Table 5.4).

TABLE 5.3: Percentage distribution of patients by nationality, social class (one missing response) and number of children (one missing response) over all wards

Nationality (N = 87)	Social Class (N = 86)		Number of Children (N = 86)	
	%		%	
Scottish	87	I. Professional	5	0 19
English	8	II. Intermediate	20	1 12
Irish	2	III. Skilled non-manual	29	2 37
Other European	2	Manual	9	3 20
Other non-European	1	IV. Partly skilled	7	4 8
		V. Unskilled	0	5 2
		Unclassified	30	6 1
				7 1

TABLE 5.4: The number of practicing Protestants among the control and test patients

	Control	Test	Total
Practicing Protestants	12	21	33
Other	32	22	54
Totals	44	43	87

$$\text{Chi}^2 \text{ (corrected)} = 3.43 \quad \text{d.f.} = 1 \quad p = 0.064$$

It was noted that 85 of the 87 patients interviewed at home had been in hospital at least once before and that 45 of the 87 had been in hospital at least five times previously.

The mean age difference of 11.3 years between test and control patients, even though not statistically significant, might be regarded as an unwelcome complication. The available evidence suggests that the elderly are at a disadvantage as far as the provision of analgesia is concerned (Pilowsky and Bond, 1969), so that the observed age difference would have tended to work against any beneficial effect of the educational programme. However, if it can be demonstrated that analgesia was better for the test patients than for the controls, this would have occurred despite the age difference. Any effect of the educational programme might therefore have been more marked had the age of test and control patients been more comparable.

The difference in the proportion of practicing Protestants between test and control patients was also a possible confounding factor since it might be expected that those with religious faith

would be better able to tolerate pain. Zborowski (1969) has pointed out that:

"... for a true believer, whether Jew, Catholic or Protestant, pain is an expression of a supernatural castigation for consciously or unconsciously committed sins".

However, the literature review did not reveal any research findings to support the idea that people who practice their faith have different pain tolerance from those who do not. Nevertheless, it was felt advisable to test for a difference in pain experience between practicing Protestants and other religious groups in the present sample of patients, and this is reported in the next section.

The data for general education are not presented due to ambiguity in the interview schedule which may have resulted in coding inconsistencies. This was due to the possibility that certain responses were mutually exclusive while others were not.

PAIN INTENSITY AND DURATION, AND ANALGESICS ADMINISTERED

Differences between test and control patients in terms of post-operative pain experience are shown in Table 5.5. Differences were statistically significant for the time not covered by analgesia before the first post-operative analgesic, and for both intensity and duration of pain on day 0 (the day of operation) and day 1 (the first post-operative day). Differences between control and test patients for day 2 (the second post-operative day) were not statistically significant. All differences were in the direction of less pain after the educational programme. When

similar comparisons between test and control patients were made for practicing Protestants and for those of other religious groups, the same pattern of results emerged for both these categories of patients, indicating that being a practicing Protestant did not have a significant effect on intensity and duration of pain. The distribution of pain intensity and duration scores for days 0 and 1 in control and test patients are illustrated in Figures 5.1 to 5.4.

TABLE 5.5: Differences between test and control patients over all wards in terms of mean time not covered by analgesia before the first post-operative analgesic, and mean intensity and duration of pain on days 0, 1 and 2 (significance of differences calculated by Mann-Whitney U-test)

	Control	Test	p
Number of patients	46	52	
Time not covered by analgesia before first post-operative analgesic (min)	138	79	0.005
Day 0: Intensity	13.31	8.69	<0.001
Duration	10.83	6.46	<0.001
Day 1: Intensity	13.67	9.52	<0.001
Duration	11.57	8.10	0.003
Day 2: Intensity	10.11	8.13	n.s.
Duration	9.98	7.52	n.s.

Note: Kruskal-Wallis 1-way analysis of variance used to test for differences between wards for these seven variables among control and test patients (14 comparisons) revealed only one marginally significant value (for pain duration among test patients on day 1).

Pain Intensity – Day 0

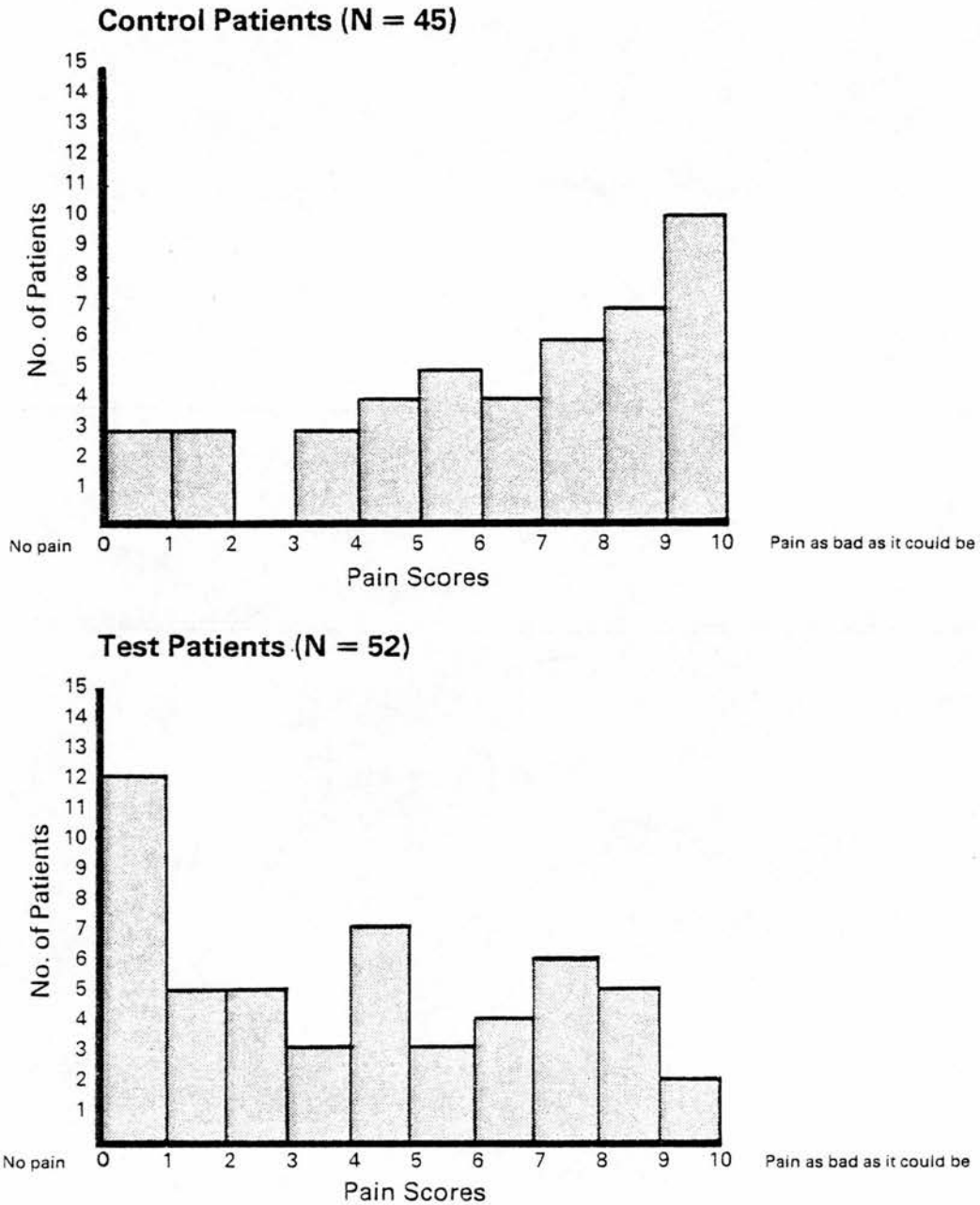
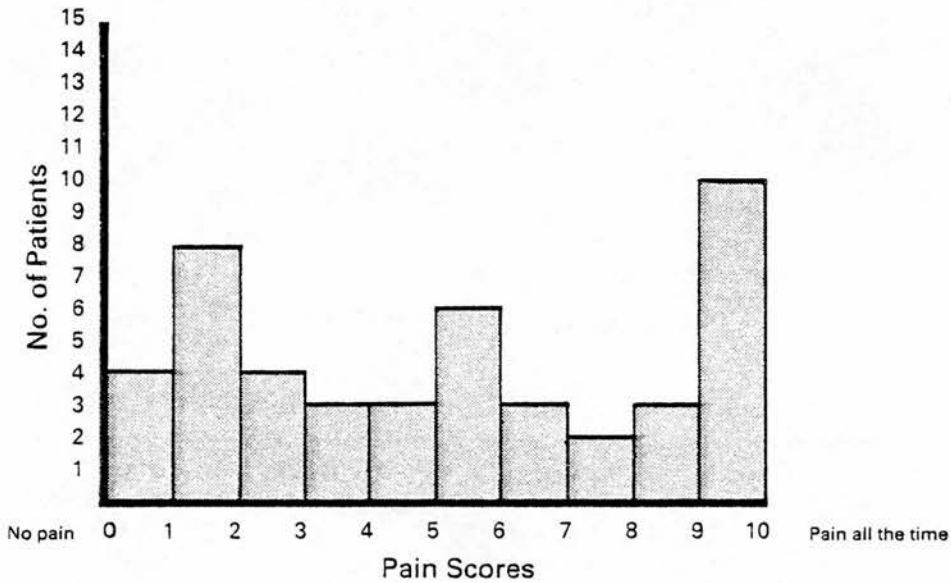


FIGURE 1: Pain intensity scores for day 0, reduced from a 20-point scale to a 10-point scale for purposes of illustration

Pain Duration – Day 0

Control Patients (N = 46)



Test Patients (N = 52)

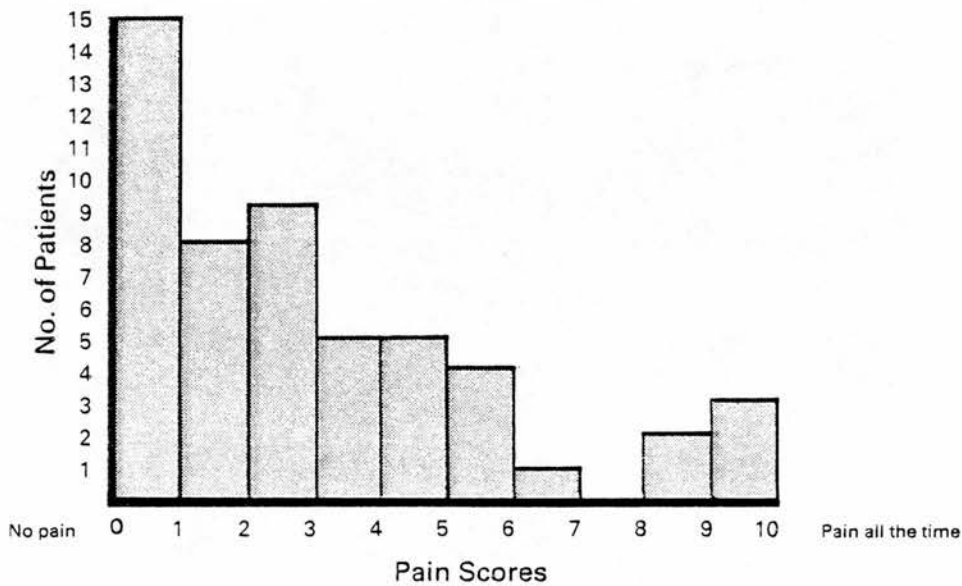
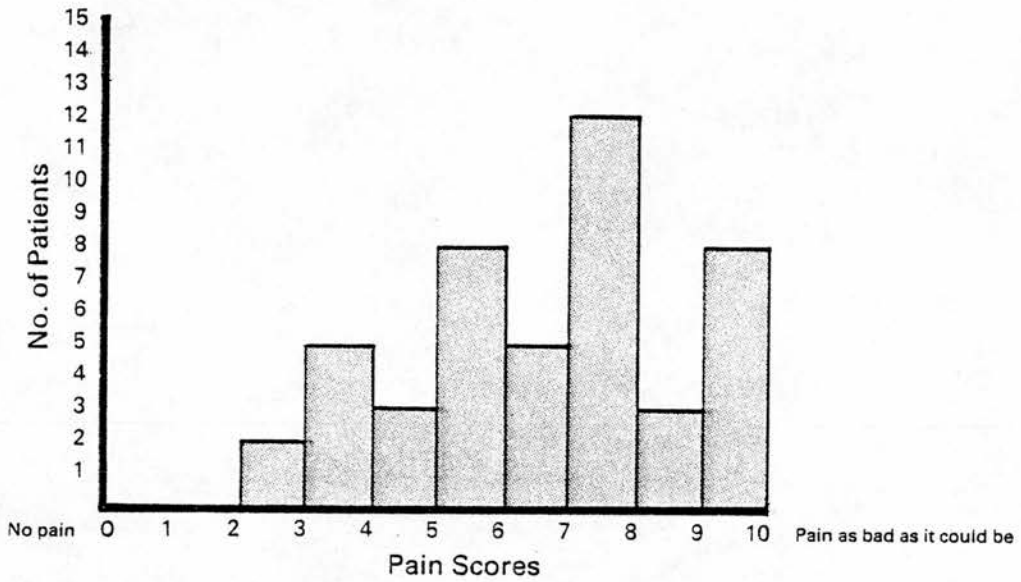


FIGURE 2: Pain duration scores for day 0, reduced from a 20-point scale to a 10-point scale for purposes of illustration

Pain Intensity – Day 1

Control Patients (N = 46)



Test Patients (N = 52)

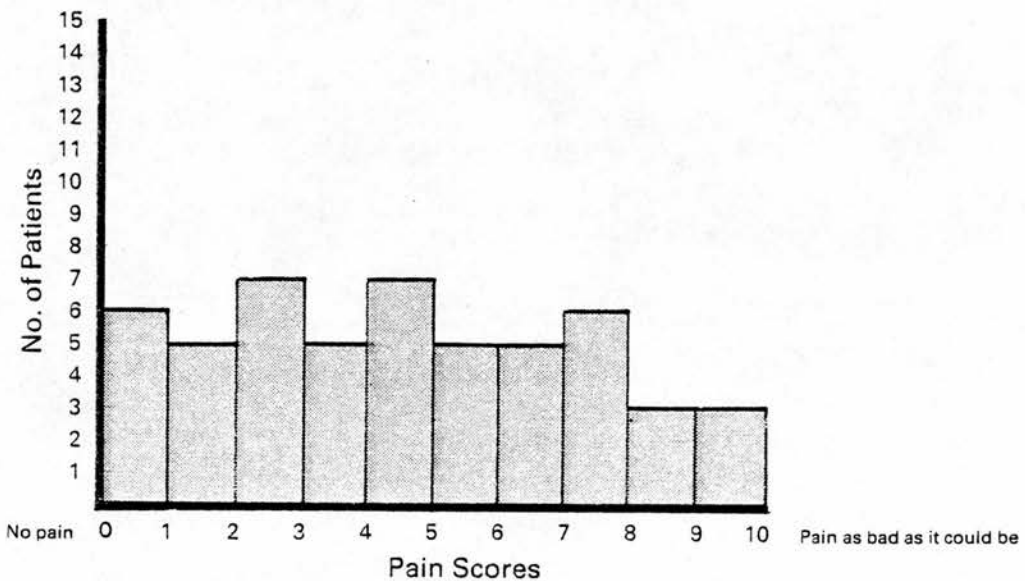
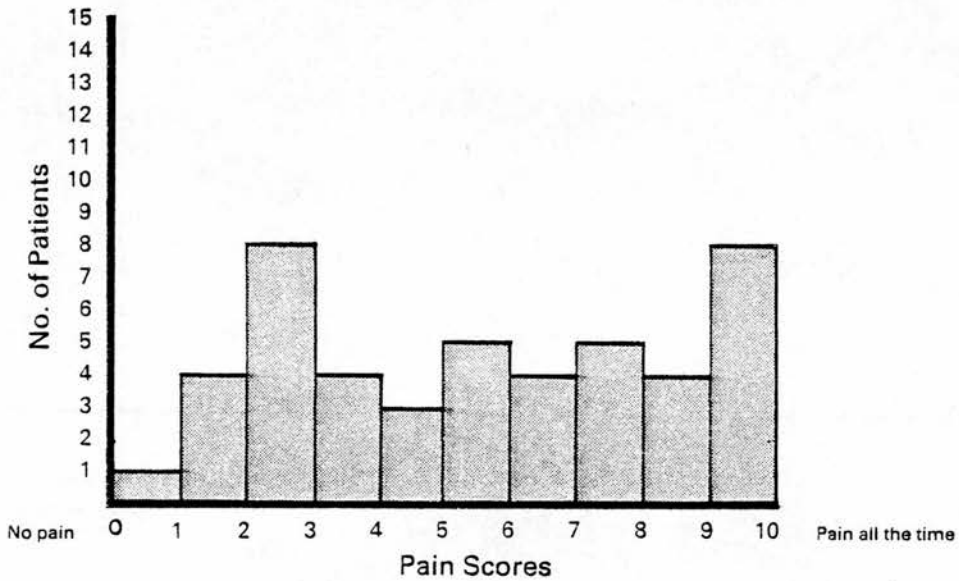


FIGURE 3: Pain intensity scores for day 1, reduced from a 20-point scale to a 10-point scale for purposes of illustration

Pain Duration – Day 1

Control Patients (N = 46)



Test Patients (N = 52)

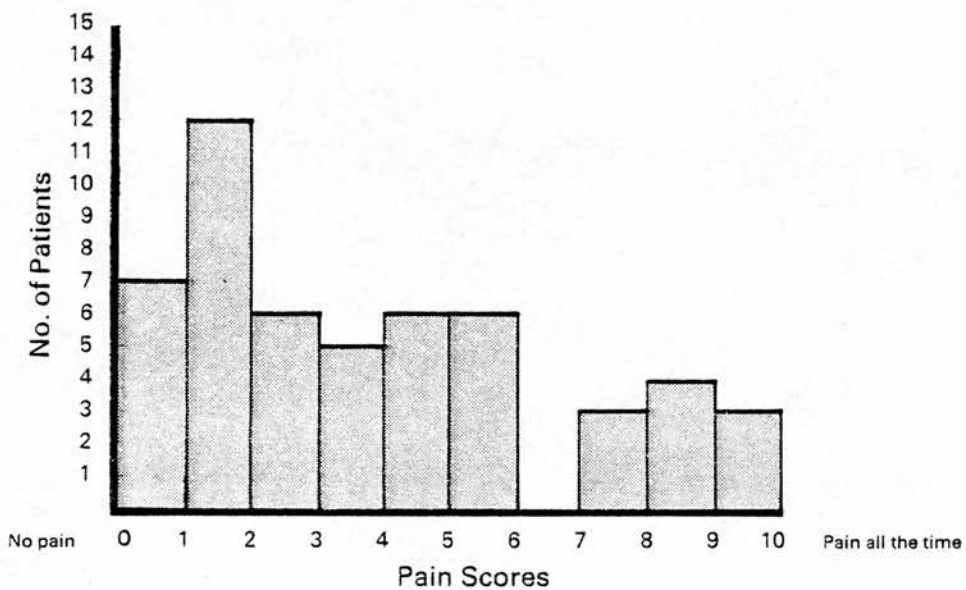


FIGURE 4: Pain duration scores for day 1, reduced from a 20-point scale to a 10-point scale for purposes of illustration

Although the mean length of time not covered by analgesia before the first post-operative analgesic was almost halved in the test group, it could still be regarded as unacceptably high. This might be accounted for by the fact that on no anaesthetic record was there any estimate by the anaesthetist of the amount of time that the pre-operative and inter-operative analgesia would be effective after completion of the operation. This suggests that it may be useful for nursing staff to be told specifically, and for each patient, the probable time when the first post-operative analgesic would be required.

The findings in relation to pain intensity and duration were perhaps the most important, since they implied more effective analgesia following the educational programme. However, the pronounced difference of pain intensity and duration observed between test and control patients on days 0 and 1 were not sustained into day 2, although a non-significant difference remained. This may be due to the observation, made in collaboration with the advising consultant anaesthetist on perusal of individual records, that although narcotic analgesia was given more freely after the operation (as described in more detail below), there was a tendency to change to non-narcotics too soon.

The administrations/prescription changes for post-operative analgesics on days 0, 1 and 2 are listed in Table 5.6. Significant differences were found for total narcotics, total non-drug round administrations and total analgesics on day 0, for prescription changes on day 1, and for total non-narcotic and total non-drug round administrations on day 2. All significant

differences indicated an increase of analgesics after the educational programme.

TABLE 5.6: Differences between test and control patients over all wards in terms of mean number of analgesic administrations (significance of differences calculated by Mann-Whitney U-test)

	Control	Test	p
Number of patients	46	52	
Day 0: Total narcotics	1.65	2.32	0.001
Total non-narcotics	0.09	0.12	n.s.
Total drug round administrations	0.78	0.90	n.s.
Total non-drug round administrations	0.96	1.52	0.005
Total analgesics	1.74	2.42	<0.001
Prescription changes	0.04	0.08	n.s.
Day 1: Total narcotics	1.87	1.92	n.s.
Total non-narcotics	1.80	1.94	n.s.
Total drug round administrations	2.30	2.13	n.s.
Total non-drug round administrations	1.30	1.73	n.s.
Total analgesics	3.61	3.87	n.s.
Prescription changes	0.02	0.13	0.043
Day 2: Total narcotics	0.69	0.46	n.s.
Total non-narcotics	2.02	2.67	0.038
Total drug round administrations	2.36	2.33	n.s.
Total non-drug round administrations	0.36	0.81	0.018
Total analgesics	2.71	3.13	n.s.
Prescription changes	0.02	0.08	n.s.

All narcotics were prescribed for intramuscular administration and, as Nayman (1980) has pointed out, the protocol for administering an intramuscular narcotic is complicated, requiring unlocking and locking of cupboards, counting drugs, checking of drug and dose by two nurses, one of whom must be trained, giving the injection and recording the administration. An increase in the mean number of narcotics administered after the educational programme on day 0 therefore implies not only greater awareness but also greater motivation on the part of nursing staff. An increase in the number of non-drug round administrations on day 0, in the absence of an increase in drug round administrations and non-narcotic administrations, indicates that narcotics were administered more on the basis of individual requirements than according to fixed routines. The increase in mean number of prescription changes after the educational programme on day 1 suggests that nurses were more inclined to draw the attention of medical staff to situations where analgesia appeared to be inadequate or ineffective. The changing levels of narcotic and non-narcotic administrations over days 0, 1 and 2 indicate that by day 2 the majority of analgesia was provided by non-narcotic drugs. However, increased awareness and motivation of nursing staff after the educational programme were still evident in that both non-narcotic administrations and non-drug round administrations were increased.

The numbers of patients about whom nursing Kardex comments on pain were recorded, together with the mean number of comments per patient over days 0-2, are given in Table 5.7. Test patients

showed significantly increased documentation of pain for both these variables. Comments were counted if the word "pain" was mentioned, that is where its existence had been acknowledged, where action had been taken to relieve it or where relief produced by action had been noted. The increased documentation of patients' pain after the educational programme indicated greater awareness on the part of nursing staff and greater readiness to communicate their observations to each other.

TABLE 5.7: Numbers of patients about whom nursing Kardex comments on pain were recorded, and the mean number of comments per patient

	Control	Test	Total
A) Number of patients about whom comments were:			
Recorded	17	40	57
Not recorded	29	12	41
Totals	46	52	98

Chi^2 (corrected) = 14.42 d.f. = 1 $p < 0.001$

	Control	Test	
B) Mean Kardex comments per patient (days 0-2)	0.52	2.17	$p < 0.001$

Significance of difference calculated by Mann-Whitney U-test

For test patients, nurses were free to use the post-operative pain assessment chart discussed in the educational programme. Where these were used, they were collected from the ward either

at the time of ward data collection or subsequently, when the nurse in charge of the ward said they were no longer required. It is hoped that the pain relief pattern of individual patients recorded on these charts will be the subject of future analysis.

THE EXTENT TO WHICH PATIENTS FELT CARED FOR IN TERMS OF PAIN RELIEF

The extent to which patients felt cared for in terms of pain relief was assessed at the home interview. The interview was administered to 87 of the 98 patients for whom ward data were collected. The reasons for 11 patients not being included have been given in Table 3.6. A standard format was adopted for each interview and responses were coded according to a previously decided scheme, allowing for probing and post-coding where appropriate. Even though, in arriving at this scheme, efforts were made to allow for all conceivable responses, it was not possible to capture all the variation encountered, particularly the more intangible aspects of patients' responses such as emphasis placed on words, tone of voice, facial expressions and gestures. The findings presented below therefore provide only a broad indication of patients' feelings about their pain relief.

Patients' recollections of their pain at the home interview are summarised in Tables 5.8 and 5.9. There was a statistically significant difference between test and control patients for their distribution over three categories of pain experienced (Table 5.8). This substantiates the difference found between test and control patients for the ward data. Patients' recollections of pain and its relief compared with their expectations on

admission to hospital are listed in Table 5.9. There was no difference between test and control patients for their expectations of pain (Table 5.9A). However, there were marked and statistically significant differences in how the pain experienced compared with patients' expectations of pain (Table 5.9B) and how the pain relief received compared with their expectations of pain relief (Table 5.9C). The fact that the overwhelming majority of both test and control patients expected pain is perhaps a reflection of cultural background. Although it is not possible to say how much pain each patient expected, it is clear that a greater proportion of test patients than control patients were satisfied, and perhaps even pleasantly surprised, by the management of their pain.

TABLE 5.8: Patients' memory of pain at home interview. How would you rate the few days after the operation?

	Control	Test	Total
Very painful	30	8	38
Moderately painful	13	23	36
A little pain/Pain free	1	12	13
Totals	44	43	87

$$\text{Chi}^2 = 24.81 \quad \text{d.f.} = 2 \quad p < 0.001$$

TABLE 5.9: Pain and its relief compared with expectations

	Control	Test	Total
A) Did you expect pain?			
Yes	38	40	78
No/Not mentioned	6	3	9
Totals	44	43	87

Cell frequencies too low to perform test.

	Control	Test	Total
B) Was the pain:			
Worse than you expected?	18	8	26
About what you expected?	19	15	34
Less than you expected?	7	20	27
Totals	44	43	87

$\text{Chi}^2 = 10.57$ d.f. = 2 $p = 0.005$

	Control	Test	Total
C) Did you feel that the pain relief you got was:			
Less than/About what you expected?	32	15	47
Better than you expected?	12	27	39
Totals	44	42	86

Chi^2 (corrected) = 10.43 d.f. = 1 $p = 0.001$

Some responses of patients in relation to their interaction with staff are summarised in Table 5.10. A greater proportion of test patients than controls said that there was someone who was especially helpful in providing information about what to expect after the operation (Table 5.10A). This information was provided by nurses significantly more often for test patients than for controls (Table 5.10B). It is not known how nurses achieved this or what information was given. Nevertheless, the educational programme appears to have drawn nurses' attention to this important aspect of care.

TABLE 5.10: Was there anyone who was especially helpful in letting you know what to expect after the operation?

	Control	Test	Total
A) No	25	10	35
Yes	19	33	52
Totals	44	43	87

Chi^2 (corrected) = 8.84 d.f. = 1 p = 0.003

	Control	Test	Total
B) If yes, who?			
Nurse	2	21	23
Other	17	12	29
Totals	19	33	52

Chi^2 (corrected) = 11.72 d.f. = 1 p < 0.001

As many as 94% of patients thought it was a good idea for nurses to discuss pain relief with them pre-operatively and 63% said that this would put their minds at rest. There was a significant difference between test and control patients in terms of whether or not nurses did discuss pain with them pre-operatively, with more test patients saying that they had been involved in such discussions (Table 5.11). These findings indicate that only a very small proportion of patients would not have welcomed a discussion about post-operative pain relief pre-operatively. The fact that a higher proportion of test patients than controls were involved in such discussions therefore implies a beneficial effect of the educational programme. However, despite this effect, pain relief was only discussed with 40% of test patients, indicating considerable room for further improvement.

TABLE 5.11: Did any of the nursing staff discuss pain with you before your operation? (One control patient could not remember)

	Control	Test	Total
Yes	1	17	18
No	42	26	68
Totals	43	43	86

$$\text{Chi}^2 \text{ (corrected)} = 15.81 \quad \text{d.f.} = 1 \quad p < 0.001$$

It is appreciated that patients may differ greatly in their outlook on surgery. For some, knowing just a little may help them to cope best (Cohen and Lazarus, 1973). The implication is that nurses should try and find out what is best for each individual in order to make the climate for recovery as favourable as possible.

Patients' expression of pain while in hospital (Question 23 of the Home Interview Schedule) was assessed according to whether or not patients adopted possible coping strategies. However, the word "coping" was not used explicitly since it was felt that certain patients might not like to be regarded in a heroic context. Only one significant difference between test and control patients emerged. This was for the proportion of patients who cried, winced or moaned with pain while in hospital, and showed that a significantly smaller proportion of test patients adopted this strategy (Table 5.12). It is not clear whether this difference arose because test patients were given a sense of control through discussions with nursing staff, enabling them to cope without expressing their pain, or whether more effective analgesia made this strategy less necessary. It is interesting, in view of the different proportions of practicing Protestants among test and control patients, that no difference was found for another possible coping strategy itemised in Question 23 of the Home Interview Schedule, namely praying. On the other hand, since control patients appear to have experienced more pain than test patients, they may have turned to prayer despite not practicing their faith. Overall, 47% of the total of 87 patients

interviewed said they prayed in response to the pain they experienced in hospital. However, there is no information from these data as to the efficacy of prayer in either group of patients.

TABLE 5.12: Patients who cried, winced or moaned with pain in hospital

	Control	Test	Total
Yes	27	15	42
No	17	28	45
Totals	44	43	87

$$\text{Chi}^2 \text{ (corrected)} = 5.09 \quad \text{d.f.} = 1 \quad p = 0.024$$

Note: This was the only significant difference between control and test patients for Home Interview Schedule questions 21-24 (How do you normally express pain? How do you normally feel about it? How did you express your pain in hospital? How did you feel about it in hospital?), a total of 25 comparisons between test patients and controls.

Significantly greater proportions of test patients than controls felt that their pain was noticed by the nurses (Table 5.13). There was also a difference between test and control patients in terms of their views of how much nurses care about pain relief (Table 5.14), and this was statistically significant over all wards. When each ward was considered alone, all 14 test patients on gynaecology ward A thought that nurses cared a lot about pain relief. These findings indicate that, after the educational programme, nurses were more prepared to take

responsibility for picking up pain cues and that patients, particularly on gynaecology ward A, felt that nurses were more concerned about relieving their pain. A significantly lower proportion of test patients reported that pain returned between doses of analgesic (Table 5.15), in keeping with the greater number of non-drug round administrations found for test patients.

TABLE 5.13: Did you feel that your pain was noticed by the nurses?

	Control	Test	Total
Always	0	8	8
Most of the time	6	19	25
Some of the time	7	8	15
Seldom	11	5	16
Never	19	1	20
Totals	43	41	84

$$\text{Chi}^2 = 33.25 \quad \text{d.f.} = 4 \quad p < 0.001$$

TABLE 5.14: Do you feel that nurses generally -

	Control	Test	Total
Care a lot about pain relief?	7	28	35
Care adequately about pain relief?	19	10	29
Could care more about pain relief?	18	5	23
Totals	44	43	87

$\chi^2 = 22.73$ d.f. = 2 $p < 0.001$

The Kruskal-Wallis 1-way analysis of variance showed no significant difference between wards for control patients but there was a difference between wards for test patients ($p = 0.01$). The numbers of test patients in different categories by ward were:

	Orthopaedics	Gynaecology A	Gynaecology B	General Surgery
Care a lot about pain relief?	7	14	3	4
Care adequately about pain relief?	5	0	4	1
Could care more about pain relief?	1	0	1	3
Totals	13	14	8	8

TABLE 5.15: Generally, when you had pain pills did the pain return before you received the next dose of painkillers?

	Control	Test	Total
Yes	35	22	57
No/Don't know	7	17	24
Totals	42	39	81

$$\text{Chi}^2 \text{ (corrected)} = 5.80 \quad \text{d.f.} = 1 \quad p = 0.016$$

When patients were asked about the general problems they experienced in hospital, significantly lower proportions of test patients complained of boredom (Table 5.16A) and of not being given enough information (Table 5.16B). It has been recognised that pain may contribute to boredom in a number of ways (McCaffery, 1983). Pain is disabling and may confine a patient to bed, limiting his interactions with others. It may also cause a patient to be unmotivated to interact with others or cause irritability which may result in avoidance of the patient by other patients and staff. The importance of realistic information for patients has been stressed by Weisenberg (1977) who pointed out that with it the credibility of the practitioner is enhanced and the patient is helped to prepare for an event. It is not clear what information was given to those patients who received it, but it may have contributed to improving patient outcomes by dispelling fear of the unknown.

TABLE 5.16: Generally speaking, what were the main problems you experienced in hospital?

	Control	Test	Total
A) Boredom:			
Yes	20	7	27
No/Not mentioned	24	36	60
Totals	44	43	87

Chi^2 (corrected) = 7.34 d.f. = 1 p = 0.007

	Control	Test	Total
B) Not enough information:			
Yes	20	9	29
No/Not mentioned	24	34	58
Totals	44	43	87

Chi^2 (corrected) = 4.83 d.f. = 1 p = 0.028

ANXIETY IN RELATION TO POSSIBLE FUTURE HOSPITALISATION

When patients were asked retrospectively to rate their level of anxiety before their recent operation no significant difference between test and control patients emerged (Table 5.17A). However, when asked how anxious they felt about a possible future hospitalisation a statistically significant difference between test and control patients was found over all wards (Table 5.17B). Each of the four wards showed a reduction in anxiety about future

hospitalisation after the educational programme, although this was particularly marked in gynaecology ward A and the general surgery ward. It should also be noted that whereas mean anxiety increased in control patients after the recent operation, it decreased in test patients. This finding suggests that the overall experience in hospital was better for the test patients than for controls. It could also be indicative of more effective attempts by nurses to reduce patient anxiety after the educational programme.

TABLE 5.17: Mean anxiety scores: A) Before operation and B) After operation (in connection with a hypothetical future operation). (Control patients 44, test patients 43; significance of differences calculated by Mann-Whitney U-test)

	Control	Test	p
A) Before operation (all wards)	10.3	9.6	n.s.
	Control	Test	p
B) After operation:			
Ward - Orthopaedics	7.9	7.3	n.s.
Gynaecology A	15.9	6.5	< 0.001
Gynaecology B	11.7	9.8	n.s.
General Surgery	17.1	10.4	0.035
All wards	12.4	8.1	0.002

It is perhaps relevant that a higher proportion of test patients than controls was given an emotional assessment on admission (Table 5.18) implying that, after the educational programme, nurses were more aware of the possible influence of emotion on pain tolerance and recovery. The nurses' emotional assessment was not detailed, usually being made as a result of a patient's response to the simple question, "How do you feel about having the operation?". Nevertheless, the assessment may have been valuable, not only for the information it provided but also because it was one way of demonstrating to patients the concern of nursing staff.

TABLE 5.18: Number of patients on whom an emotional assessment was carried out

	Control	Test	Total
Yes	16	38	54
No	30	14	44
Totals	46	52	98

$$\text{Chi}^2 \text{ (corrected)} = 12.96 \quad \text{d.f.} = 1 \quad p < 0.001$$

Seven control patients and five test patients spontaneously unburdened themselves at the home interview in relation to their anxieties during and after hospitalisation. A number of negative feelings were identified and attempts were made, after the interview, to help the patients relieve them. Some of these patients appeared to be suffering from "aftermath of pain" feelings

(McCaffery, 1983) indicating, as pointed out by Cassel (1982), that suffering does not necessarily end when a disease has been cured. Feelings of depression, resentment and guilt were among those expressed by these patients. In every case the interviewer mentioned that, if the patient felt the need, she should consider seeking the advice of her general practitioner.

SUMMARY AND CONCLUSION

All statistically significant differences between test and control patients for measures of pain were in the direction of less pain following the educational programme. This may have been related to greater awareness of patients' pain, as revealed by the increase in number of Kardex comments, and to the differences of analgesic administration between test and control patients. The non-drug round administrations and prescription changes reflected willingness on the part of nursing staff to provide for individual patients' needs and to approach the medical staff if the prescription proved to be inadequate. The mean number of narcotic administrations on day 2 was lower than on day 1 for both control and test patients, while the mean number of non-narcotic administrations was higher. This may indicate a premature switch to non-narcotic analgesics, resulting in poor pain relief, which could in turn explain the lack of a significant reduction in pain intensity and duration on day 2 following the educational programme, even though significantly more non-narcotic administrations were noted. This finding is interesting in that patients are usually expected to be mobile by day 2 and improved

pain relief could assist in achieving this goal. Unfortunately, no data were collected in relation to how painful mobilisation was for patients.

The differences between test and control patients' memory of pain and how this pain and its relief compared with their expectations, appear to be related to the patients' opinions and observations of the care they received from the nursing staff. These were disclosed by responses to questions on discussion of pain with nurses, on who was especially helpful in providing information about what to expect after the operation, on whether patients felt that their pain was noticed by the nurses, and on whether patients felt that nurses cared about pain relief. The greater number of emotional assessments among test patients on admission to hospital may have contributed to better individualisation of care after the educational programme.

The increase in anxiety among control patients following their operation is a sad reflection on routine hospital care. Nevertheless, as the results in this chapter have shown, intervention by nurses can result in pronounced improvements in patient care as assessed by the patients themselves. However, because direct monitoring of nurse behaviour was not undertaken, it is not known exactly what interventions were made and how much each contributed to the end result. Although certain of the findings suggest that there was an increased awareness of pain among staff, it could be that, if test patients were told by staff that they could ask for analgesia, they may have requested more analgesia themselves. In any event, the findings indicate that the test

patients were more satisfied with their care than the controls, particularly with regard to pain relief, and this is what the educational programme set out to achieve.

CHAPTER 6

SOME SUBJECTIVE RESPONSES

In this chapter the subjective responses of the participating nurses and the researcher to the project are considered in some detail. Tierney (1974) suggested that nursing research at ward level would only become feasible if practicing nurses have a positive attitude to research on their own ward, while Greenwood (1984) has pointed out that nurses do not perceive research findings as relevant to nursing practice because frequently they are not relevant. The topic of post-operative pain relief, however, could not be considered other than relevant to practice and, since change was needed, where else other than the ward situation could this be effected? Indeed, it has recently been suggested that educational opportunities should be available to all levels of nursing staff, within as well as outside their place of work, and that these opportunities might include group discussions and on-the-job tuition (Auld, 1981).

Since it would not have been possible to carry out the research without the co-operation of the charge nurses their views are considered first.

VIEWS OF CHARGE NURSES

Following completion of each ward module, charge nurses were asked for their comments. These are summarised below, together with those from staff nurses where appropriate.

On the orthopaedic ward, the charge nurse remarked that the research was useful and had made the staff, including herself, more objective in their attitudes towards pain. She felt that the staff had become more knowledgeable, although in the past

they were not intolerant of patients' suffering. However, she thought that there was too much reading material and that some of it was repetitive. Staff had felt that too much time was spent away from patient care. She commented that it was annoying when the researcher arrived at inconvenient times, such as handover of report, but she acknowledged that the ward rarely had quiet periods. No comments were received from the staff nurse. The charge nurse's comments reflect one of the problems noted by Tierney (1974), namely that the primary responsibility of a ward nursing team is for patient care and not for research, thus presenting a dilemma of service needs versus research needs.

On gynaecology ward A, the charge nurse said she was apprehensive during the initial stages of data collection when patients were being seen but staff were excluded. She felt that the interview gave her some insight into the subject but she had felt a little nervous. She commented on the usefulness of the reading material and the thought-provoking tape recording. She expressed appreciation for the group discussions and thought that the idea of introducing emotional assessment and pain assessment was "very revealing". She felt that these innovations had helped the staff in understanding the patients. She expressed the wish to continue the scheme of pain assessment and felt that the project was worthwhile. In addition, she thanked the author for including her ward in the project.

The frankness and honesty with which this charge nurse contributed to the discussions were reflected in the results seen from this ward. It is possible that her own admission on one

occasion, "We haven't been doing it - we could be doing better", was an encouragement to other staff on the ward. One of her staff nurses wrote:

"I have gradually become more confident in dealing with post-operative pain and I am treating each patient as an individual".

The staff nurse's comments on her own confidence were echoed in the increasing ease with which students on this ward were able to report pain. Comments from a student who came on the ward towards the end of the project and who had attended the author's earlier lectures on pain as part of the University's undergraduate programme, indicated that the staff on this ward were aware of the possible individual variation in patients' pain and that it became part of the routine for nurses to check on patients' discomfort and to communicate it to other members of staff.

On gynaecology ward B, the charge nurse commented that the project gave her more understanding of the patient in pain but she felt that too much emphasis was being placed on pain and therefore the patient would be made even more aware of it. She found pain assessment time-consuming but felt that, in principle, the idea was good if it could be incorporated in another chart already in use. On the other hand, the staff nurse commented that, as a direct result of the project, each patient's emotional state on admission was being noted and that she herself had become more confident in approaching medical staff with regard to changing analgesia or anti-emetics.

On the general surgery ward, the charge nurse wrote to say that it was a privilege to take part in the research programme.

She found the project of value to herself and felt that this aspect of nursing training required more emphasis. She expressed appreciation for the literature and was keen to incorporate pain assessment into her routine management of patient care as she felt this would benefit the patients. Both staff nurses commented on their increased awareness of pain. In the light of these comments it is interesting to note the remarks of a third-year University undergraduate nursing student who left the ward just before the project began. She had attended the author's lectures in the University and, as part of the course, was asked to comment on practice in the ward she had just left. She said:

"In this ward pain is seldom reported at shift changes. I have never seen analgesics given before physiotherapy, before turning or before other painful procedures. If patients are asleep at drug round times, nurses do not go back to find out if they have pain when they wake up".

In April 1983, following completion of all modules and 15 months after the first data for the main study were collected, each charge nurse was contacted to see how she now felt about the project and about using some of the ideas that were introduced. The charge nurse on the orthopaedic ward said that she had been thinking of using a pain assessment tool in any case and planned to do so. Gynaecology ward A were continuing pain assessment on selected patients. On gynaecology ward B the charge nurse said that she had thought about the ideas but was not really interested in putting them into practice. On the general surgery ward the charge nurse said she would try out the pain assessment charts. In October 1983, the charge nurses were contacted again. The

orthopaedic charge nurse said she had not got round to instituting pain assessment because the ward had been very busy. Gynaecology ward A were still using pain assessment intermittently. Gynaecology ward B's charge nurse indicated she was not interested. The charge nurse on the general surgery ward said they had used the pain assessment charts from time to time.

In February 1984, just prior to writing this chapter, telephone contact was made with each ward for the last time. During the course of conversation the author asked each charge nurse if she had managed to maintain her interest in pain assessment and put it into practice. The orthopaedic charge nurse said:

"No, I think about it from time to time and one day maybe I will, but post-operative pain isn't a problem on the ward".

On gynaecology ward A the charge nurse said, "Yes, we use pain assessment from time to time. I must admit less now, though". The author asked why this was and the charge nurse replied, "Well it was easier when you were around. I appreciated your encouragement and your helping us to realise we could do more for patients". The charge nurse on gynaecology ward B said, "No, I don't see it would be of any benefit to me". On the general surgery ward, the charge nurse commented:

"Well, we do use pain assessment intermittently but we're awfully busy. You know what the ward is like. I keep saying that one day I'll get round to teaching more. I know pain relief is important".

These latest comments reflect, even for gynaecology ward A, the extent to which ward business and research priorities may

conflict, even for such a practically based topic as pain management, and that innovation may not be sustained without regular reinforcement.

VIEWS OF OTHER NURSES

Of the 47 nurses, other than charge nurses, who participated in the discussion sessions, 33 (70%) responded to the request for feedback. The responses are summarised in Table 6.1 and some of them are reproduced in full below.

TABLE 6.1: Comments from 33 nurses (excluding charge nurses) on their views of the educational programme, ranked according to frequency. (The comments were not mutually exclusive).

<u>Positive Comments</u>	
Made more aware about patient's pain	17
Pain assessment charts helpful	14
Expanded knowledge	11
Reading material interesting	11
Discussions useful	9
Material should be a routine part of nurse education	6
Feel more confident	3
Total positive comments	71
<u>Negative Comments</u>	
Too many articles to read	4
Initial interview too rushed	3
Too junior to benefit in discussions	2
Tiring to participate in discussions at the end of a shift	1
Pain assessment only useful for the day of operation and first post-operative day	1
Not inspired by the format of the research	1
Total negative comments	12

Positive Views

"Since reading all the articles on pain it has opened my mind and given me a whole new field. I feel now there is no reason for anyone to suffer needless pain. I've come to realise also, through reading the articles, how the nurse/patient contact is so important".

(Enrolled nurse/post-basic student)

"I had not thought before about patients' pain after an operation, although I knew they suffered a lot. The discussions have made me think a great deal about it. I now think it is important to give pain relief to patients when they ask for it. Before the discussions began I was under the impression that if you gave too much the patient is liable to become addicted".

(Student nurse)

"I am pleased that the subject is being brought to nurses' attention. I feel we need more education in this field as student nurses".

(Student nurse)

"The subject should be introduced to college [of nursing] courses".

(Student nurse)

"I feel the charge nurse and staff now work better as a team because we were all involved and now we have the same knowledge and awareness of pain".

(Staff nurse)

"I have discovered new things about pain and analgesia which are essential for nursing care".

(Student nurse)

"The discussions were good and I feel I learnt a lot from them".

(Pupil nurse)

"More diamorphine has been used since the project began. The pain assessment charts were useful and showed the variation in patients' tolerance to pain".

(Staff nurse)

"I feel it would be valuable to student nurses if time was taken during training to explain and outline the ideas that were contained within the programme".
(Student nurse)

"I've never thought about the effectiveness of drugs. I'm just used to giving them and not really assessing their effect. After years and years of giving what's been prescribed, that's something to think about".
(Staff nurse)

"It is good to share opinions from other members of staff such as sisters and staff nurses".
(Student nurse)

"At first my knowledge of pain was virtually zero, I feel now that I have gained some knowledge".
(Student nurse)

"There has been some interchange of views and ideas among staff about pain relief for the patients and, on the whole, I think everyone feels they have gained something from taking part in this study".
(Student nurse)

"I have been able to use the material during my care for patients on this ward".
(Student nurse)

Negative Views

"The initial questionnaire would have been better if filled in by the individuals themselves. Using pain assessment for 4 days is too long. In the initial survey interview I was not given enough time to really think about the questions asked".
(Staff nurse)

"I found the articles interesting but a bit heavy going at times".
(Student nurse)

"Although I found the subject matter interesting I did not feel the format of the research inspired much enthusiasm in me. I felt I was given too many articles to read, which were somewhat repetitive and therefore I found them boring. I do not feel that nurses on the whole are unsympathetic and personally I think I have been quite aware of patients' pain and have acted accordingly".

(Student nurse)

COMMENTS ON VIEWS OF NURSE PARTICIPANTS

It is encouraging for nurse education that the overwhelming majority of comments were favourable and that most nurses who responded to the request for feedback felt they had benefited from participation in the programme. However, it should be noted, in relation to the comment most frequently made (Table 6.1), that individual nurse's awareness of patients' pain is not enough. Each patient is cared for by a team of nurses, so that the sharing of ideas and discussions of problems are essential for good pain management and continuity of care. In this respect, pain assessment charts are helpful and several of the nurses who commented recognised this. The first two examples of comments demonstrate that for these two participants the innovation had, perhaps, become routine.

It could be argued that respondents may have been more inclined to make positive rather than negative remarks in order to gain approval. Furthermore, there is no way of knowing the views of the 14 nurses who did not respond to the request for feedback. On the other hand, there is no reason to believe that nurses did not feel just as free to express negative views as positive ones.

It may be that the impact on these nurses who responded favourably was successful only in the short term. Many of those who participated will no longer be part of the original teams studied and what benefit they bring to other teams may be diluted by the constraints of the system within which they find themselves. Indeed, one student nurse contacted the author shortly after leaving gynaecology ward A feeling very distressed and powerless because she was now working on a ward where pain relief was not considered a priority.

VIEWS OF THE RESEARCHER

In planning the format of the teaching programme it was thought important to be as consistent as possible from one module to the next. This was broadly accomplished, although minor adjustments had to be made from time to time to accommodate differences in awareness of the problem of pain management between wards. Every effort was made to maintain the self-respect of nurse participants and for the researcher to hide her own dismay when certain myths and attitudes were encountered, particularly during interviews. It was important for staff themselves to realise the potential for increasing their accountability within nursing rather than to be confronted with their own previous misconceptions. The researcher therefore learnt the importance of conducting interviews in an objective fashion. Since all interviews were confidential, it was further important that their content was not disclosed during group discussions.

Part of the difficulty in carrying out this project, as in all experimental type research, was living with the uncertainties over the 16 months of data collection. It was not known for sure until the data were analysed what the true situation was regarding nurses' knowledge and beliefs, and it was not known if any improvements would be shown as a result of the educational programme, even though the pilot results had been encouraging.

In thinking about other ways in which the research problem might have been tackled, it is of interest to consider the traditional methodology of action research derived from Lewin (1946) and discussed by Cope (1981). This would have involved collection of data from control patients, analysis and then feeding the results back to staff in such a way as to improve the situation. Whereas this method would have obviated the need for a "cloak and dagger" approach and may also have resulted in improved patient outcomes, staff's awareness of pain control might have been improved simply to create a good impression with the researcher. On the other hand, the traditional action research method might have enhanced the likelihood of a long-term effect since staff would have been aware of the results derived from control patients on their own wards. Because of the nature of the design it was not possible to capture differences in the way nurses interacted with patients before and after the educational programme.

The falling off of interest noted in the charge nurses after completion of the educational programme, together with the transience of staff, may mean that the improvements in pain relief

have not been sustained. However, there is no way of knowing this without collecting additional data. At the time, the method chosen was considered the most appropriate for finding out whether pain relief can be improved through an educational approach, because although several suggestions have been made that education in relation to pain would improve pain control as mentioned in Chapter 1, there were no studies found testifying to the problems involved or benefits to be gained from such a programme.

In retrospect, having now completed the study, the author has given some thought to better ways in which the aims of the study might have been achieved. It would certainly have been more appropriate to collect less information from each participant, for the amount collected turned out to be too much to handle. This would have meant shorter interview schedules, which would particularly have been appreciated by nurse participants. With hindsight, also, the material for the educational package might have been prepared using a patient vignette approach rather than through reading somewhat repetitive literature, thus helping nurses to appreciate better the contextual nature of pain. The power of individual experiences became more evident to the author as experience of interviewing patients at home increased.

Every effort was made to fit in with each ward's schedule, and to make appointments and obtain permission for interviewing the staff. In spite of this, the researcher herself was keenly aware of the conflict between ward business and the research project, particularly on the orthopaedic and general surgery wards. There were times when nurses had to leave ward discussions

for patient care, which naturally took priority. In hindsight, it might have been more practicable to use a self-administered questionnaire for nursing staff but, in doing so, there would have been the risk of collusion. As already indicated, a shorter nurse interview and less reading material might have been better suited to busy surgical wards.

In collecting ward data from participating patients, the researcher was particularly conscious of the need for objectivity. At times, this was achieved only with difficulty since situations arose where patients had clearly suffered unnecessarily and to have mentioned this to staff would have rendered useless any subsequent data collected. It was particularly depressing at the home interview to find that several patients had experienced unrelieved pain in hospital. This strengthened the author's own commitment to pain relief, but nevertheless caused considerable despondency at times. It was at these times that the psychosocial and academic support provided was particularly important for the researcher's survival (Sofaer, 1982; see Appendix IVa).

CHAPTER 7

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

SUMMARY OF GENERAL FINDINGS

The present work was founded on the idea that education is required to improve post-operative pain relief. The aim of the project was to improve nursing practice by educating teams of nurses about post-operative pain and its control. The strategy chosen was aimed at bridging the gap between education and service. This was accomplished by the author using herself both as a resource for increasing knowledge and awareness among staff and in a supportive role to encourage and facilitate change. Patient outcomes were measured before the commencement of the educational programme (control patients) and following its completion (test patients) on each of the four participating wards.

It was possible to conduct the research at ward level despite logistic problems. The pre-educational interviews showed that nurses' knowledge of pain and its relief was generally poor and that there were a number of misconceptions and prejudices about pain relief. The results were therefore in line with findings from other studies.

The educational programme made use of ward-based discussions with staff as a means of increasing nurses' awareness of pain. Topics covered included the psychological aspects of pain, socio-cultural factors associated with pain, the use of pain assessment and specific pain therapies, particularly analgesic drugs.

Statistically significant improvement in test patients compared with controls was found in terms of several different measures of patients' pain experience and patients' perception of general nursing care. These included:

- (i) The estimated time in pain before the first post-operative analgesic.
- (ii) Pain intensity (for the day of operation and the first post-operative day).
- (iii) Pain duration (for the day of operation and the first post-operative day).
- (iv) The number of nursing Kardex comments referring to pain and its relief.
- (v) Patients' recollection of pain at the home interview.
- (vi) Pain experienced compared with patients' expectations.
- (vii) Relief of pain compared with patients' expectations.
- (viii) The extent to which patients felt nurses cared about pain relief.
- (ix) Anxiety in relation to a possible future hospitalisation.

DIFFERENCES BETWEEN WARDS

Only two of the patient variables studied showed significant differences between wards by Kruskal-Wallis analysis of variance: patients' opinions as to how much nurses care about pain relief; and the level of anxiety in relation to a possible future operation. For both these variables, the results from gynaecology ward A were of particular interest. For the first (Table 5.14), all test patients on this ward felt that nurses cared a lot about

pain relief. For the second (Table 5.17), there was a highly significant difference between test and control patients on this ward while differences for the other three wards were either not statistically significant or, on the general surgery ward, significant at only the level of $p = 0.035$. The implication is, therefore, that gynaecology ward A responded better to the educational programme than the other three.

The nursing team on gynaecology ward A was different from the other teams in a number of ways that might have some bearing on the observed difference of response to the educational programme. It had the lowest mean age (Table 4.2), the least surgical experience (Table 4.4), the highest scores for the self-administered knowledge test (both before and after the educational programme, Table 4.8) and a charge nurse who was most enthusiastic about the project and the most open about the existing shortcomings in practice on her ward (Chapter 6). The picture was therefore one of youth, of the nurses not being set in their ways, of knowledge, of general contentment with life and of the will to do better. In other words, the situation was perhaps ideal for introducing innovation. It therefore seems possible that the effect of the educational programme might have depended to some extent on the characteristics mentioned. Mason (1981) showed that nurses with the least amount of nursing experience inferred the greatest degree of physical suffering in patients. However, a more recent publication suggests that nurses' inferences of patients' pain may not be influenced by nurses' age and number of years in practice (Dudley and Holm, 1984).

As shown in Chapter 4, the nursing team on gynaecology ward B had the lowest Satisfactions, the highest Frustrations and the lowest Outlook on Life scores. Furthermore, as mentioned in Chapter 6, the charge nurse on gynaecology ward B was the least enthusiastic about the project. Nevertheless, the response to the educational programme on this ward, in terms of patient outcomes, did not stand out as being different from that on the other wards.

In discussing differences of response to the educational programme between wards it should, however, be noted that the degree of response may be related to the level of practice that existed at the commencement of the study. As exemplified by the self-administered knowledge test (Table 4.8), those wards that scored well before the educational programme responded least, while those that scored poorly responded best, simply because there was greater room for change.

CONCLUSIONS

In reply to the research questions formulated, the conclusions are as follows:

1. It is a fact that nurses on the wards studied lacked knowledge about pain, although there was some variation between wards.
2. Knowledge was improved following the ward-based educational programme.
3. There were statistically significant differences in patient outcomes between those patients studied before and those studied after the educational programme, although no causal relationship can be claimed with certainty.

4. No firm conclusions can be drawn about stress experienced by nurses in relation to their management of patients' pain.

IMPLICATIONS

The study has implications for patients, nurses and medical colleagues. As far as patients are concerned, it has been shown that heightening nurses' awareness can improve the lot of post-operative patients, both in terms of pain relief and general nursing care. This might extend to other forms of specialist nursing also. Furthermore, there is no need for patients to leave hospital more anxious about the possibility of future hospitalisations than when they were admitted. From the point of view of the nursing profession, it is important to know that research can take place at ward level, and it is hoped that other investigators will be encouraged to pursue active research in the clinical area despite logistic problems. Within the limitations of their workload, nurses of all grades appear willing to participate in research, to acquire new knowledge and to apply what they have learned to patient care.

Looking to the future, it is important for nurse educators to incorporate new ideas of potential value into training courses and for nurse administrators and in-service education staff to provide opportunities through which trained nurses can be called upon to review current practice and improve upon it where possible. For medical colleagues, the relevance of the study lies in the finding that routine post-operative prescribing may not always be adequate. It may therefore be desirable to increase communication between nursing and medical staff to adjust prescriptions where necessary and so improve pain relief.

RECOMMENDATIONS

It is clear that nurses' knowledge about pain should be improved and that attempts should be made to remove any misconceptions or prejudices about pain from their system of beliefs and values. In the light of the findings of this project, the following recommendations are made:

1. Education about pain relief should be seen as a priority within the nursing profession.
2. Teachers of nursing should be encouraged to improve their own knowledge, and that of post-basic students, in relation to post-operative pain.
3. Encouragement should be given by nurse administrators to staff at ward level to improve pain management.
4. In-service education should provide up-to-date information and regular workshops on pain management.
5. Anaesthetic staff should record and communicate to nursing staff the expected duration of pre-operative and inter-operative analgesia so that patients will not be left to suffer pain immediately post-operatively.
6. Medical staff should encourage nurses to contact them if analgesia appears to be inadequate.

POSSIBILITIES FOR FURTHER ANALYSIS AND FUTURE RESEARCH

A number of possibilities for further analysis of the data emerged during the course of the project. Sufficient information seems to be available for comparing knowledge, beliefs and values relevant to pain management in different groups of nurses. For

example, a comparison could be made between trained and untrained staff or between those who have had personal experience of surgery and those who have not. Such comparisons would indicate whether a nurse's training (or lack of it) and her own experiences of post-operative pain contribute to her views about patients in pain. A comparison of Heimler scale findings between nursing teams from different specialities might also be revealing, since nursing patients with acute pain might influence staff differently to nursing patients with chronic or terminal pain. This kind of study might ultimately suggest how the satisfactions of nursing teams might be maximised and the frustrations minimised. However, a recent publication has indicated that nurses' inferences of patients' pain may not be influenced by their own job satisfaction (Dudley and Holm, 1984). If the observations in relation to gynaecology ward A (discussed earlier) are accepted, the maximising of satisfactions and minimising of frustrations constitute an important prerequisite to improving the quality of patient care. A number of patients who participated in the study were themselves nurses. The effect of this specialised knowledge on the expectation and experience of pain relief could be investigated by comparing home interview responses of these patients with those of other patients. The effect of previous experiences of pain could also be investigated in this way. Finally, as already mentioned, enough material has been collected to comment, in collaboration with a consultant anaesthetist, on the prescribing of analgesic drugs on the four wards.

In addition to the further analysis of data already collected, various possible directions for future research were identified. In

terms of pain management, it is important to find ways in which to encourage individualised assessment of pain with patients. It might also be useful to undertake studies of the effects of different therapies, such as relaxation and guided imagery, that can be used independently by nursing staff. Additional research into aspects of communication, both written and verbal, is urgently needed to clarify the discrepancies between expectations of patients, nurses and doctors with regard to pain relief. In particular, it would be valuable to find out what patients want to know about their hospitalisation and how various items of knowledge influence patient outcomes. The factors involved in a nurse's decision to administer analgesia are also of interest if accountability and responsibility of nurses in the management of pain are to be encouraged. Finally, studies of ways in which to maximise patients' own coping strategies should also contribute to better pain management. One particular aspect of coping touched on in the present study, the possible effect of religious practice on pain tolerance, is perhaps worthy of special mention.

CONCLUDING REMARKS

Pain is a subjective phenomenon. As nurses we must be prepared to learn more about pain and its relationship to the individual as a whole. For each patient the experience of pain is unique, influenced by anatomical, physiological, psychosocial, environmental and cultural factors. The challenge lies in identifying what suits each patient best.

The nursing profession has a commitment to the relief of suffering. Post-operative pain is an area in which suffering cannot

only be relieved but largely prevented. Nurses can and must be taught how to improve their care of post-operative patients to achieve this goal.

It has only been possible to give a very broad view of the experiences of the patients included in this study. Their experiences, and in particular their pain, cannot adequately be translated into words. This problem has been succinctly summed up in general terms by Bateson (1979, after Alfred Korzybski) as, "The map is not the territory, and the name is not the thing named". In other words, only the patient himself truly knows what his pain is like. Perhaps the most important step towards improving the nursing management of pain would be for all nurses to understand and accept this simple fact. It is hoped that this research project has gone a little way towards achieving this end.

APPENDIX I

PAIN: A HANDBOOK FOR NURSES

(Proof Copy)

This book was prepared as part of the work
for the thesis. It includes information
derived from reviewing the literature.

PAIN: A HANDBOOK FOR NURSES

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Harper & Row, Publishers
London

Cambridge
Hagerstown
Philadelphia
New York



San Francisco
Mexico City
São Paulo
Sydney

**"Pain is."
(Wall, 1977)**

Wall, P D (1977) Why do we not understand pain?, in R Duncan and M Weston-Smith
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PREFACE

For the most part this book was written while visiting Jerusalem. In that beautiful city time collapses. The old meets the new; there is the 2000 years ago and the now. One is often reminded of both how little and how much man has progressed. So it is with life generally; tools are developed for use and their value is acknowledged, but often there is a missing link, that of educating people in the best ways to apply them. A similar situation exists with the problem of pain management. Several treatments have been developed and are known to be potentially useful, but either they are not applied or, if applied, their effectiveness for the individual patient may not be properly monitored.

This book is an attempt to introduce nurses to the concept of pain. Because we, as nurses, more than any other members of the health team, encounter pain in so many situations in the course of our work, it is of particular importance that we improve our knowledge and heighten our awareness of this complicated subject. Nurses are not alone in being generally uninformed about pain and its management. The need for pain education is accepted within the medical profession.

The management of pain is not easy because, even though much research in several disciplines has taken place into its nature, pain remains difficult to define. Furthermore, each discipline may have its own narrow perspective of the problem. For example, a neurologist will talk in terms of nerve pathways and his treatment may consist of trying to prevent pain impulses from reaching the consciousness, either by prescribing drugs or

by surgical intervention. He may not, therefore, fully appreciate psychological or cultural aspects of pain which play an important part in determining how a patient expresses pain. This may be unhelpful to the patient experiencing pain who needs to be understood and cared for in a wider context. Such comprehensive care involves a broad knowledge base, or at least some awareness of all the factors concerned. Many nurses have told me how little theory they have been taught in relation to pain and its relief. I hope that the ideas outlined in the following pages will be helpful in overcoming some of the difficulties we face in the management of pain.

The content of this book is based on input used for an educational research project which was carried out on four surgical wards. During the project, reading material which focused on important factors influencing pain management was circulated to members of nursing teams. Topics covered included psychological aspects of pain, cultural factors associated with pain, the use of pain assessment and an introduction to pain therapies, particularly the use of analgesics and distraction techniques. It was as a result of comments from participants in the research project that the material they thought helpful has been put together in its present form. The book is more concerned with general principles of pain management than with special types of pain particular to specific diseases. I have tried to make it appealing to all grades of staff, to omit complicated jargon and to bridge the gap between the basic principles of awareness of pain and some of the therapies. For those whose curiosity has been aroused references are included at the end of each chapter. A general bibliography and a further reading list are provided at the end of the book.

One criticism (amongst others) of this book may be that it deals little with the neurophysiological aspects of pain, although an attempt has been made to include simple explanations of relevance to nursing care. Readers with an interest in neurophysiology may wish to follow up some of the references quoted. Nurses, for whom this book is primarily intended, deal with the behaviour of sick people — people undergoing stressful periods in their lives. It is therefore of greater importance that nurses are made aware of factors associated with pain and its management that fall within the realms of psychology and interpersonal communication. Since nurses are often in a position to provide or deny relief of pain to patients, it is also important that they are aware of ways to assess pain with patients and of treatments available for pain control.

In the text, patients are usually referred to as 'he', whereas in referring to nurses it has been convenient to use 'she'. No disrespect towards male nurse colleagues is intended.

My thanks to colleagues and friends, both in Jerusalem and Edinburgh, who have offered encouragement. Most particularly I am grateful to the nurses who participated in the research project and who told me what aspects of learning about pain were important to them and might be of use to others.

I hope you will find this little introductory book helpful.

Beatrice Sofaer
Edinburgh 1984

CHAPTER 1

A PATIENT'S EXPERIENCE

I now equate hospitals with *pain*, really, and before I thought they were fairly pleasant places and that they [the staff] were there to look after you. I must admit I have a different opinion now, totally.

(A patient — 2½ weeks following surgery)

During the research project referred to in the preface, time was made available for nurse participants to listen to and comment on the recording of an interview with a patient who had been in hospital undergoing surgery. Many of the nurses felt uncomfortable or embarrassed on behalf of the profession while listening to the tape, but most agreed that this patient's experience was by no means exceptional.

A transcript of the recording is reproduced below. The subject being interviewed was aged 38. She was a married lady with three children and was a civil servant by profession. The interview is transcribed exactly as it occurred.

Some readers may feel that a single interview cannot be taken as representative of all patients' hospital experiences. However, one bad experience is one too many, and this patient's experience illustrates vividly many of the points discussed later in the book.

Interview

Interviewer Thank you very much for letting me come to see you. I understand that you have been in hospital recently.

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- Respondent* Yes, I was admitted for an operation because of a duodenal ulcer which I had for 10 years. It had given no problems but, because of a new medication, the operation suddenly became necessary and I was admitted to hospital 3 weeks ago.
- Interviewer* So you had your operation how long ago?
- Respondent* On the 16th of November.
- Interviewer* That's about what, about 16 days ago?
- Respondent* That'll be it.
- Interviewer* And, generally speaking, what were the main problems you experienced in hospital? For example, did you have any difficulty sleeping at all?
- Respondent* After the first night I had constant difficulty in sleeping. The medication provided in my case didn't seem to work and I could find no comfortable position and, since the pain killers didn't work, nights were more or less spent sitting up in bed, changing to an arm-chair and generally wandering around the ward. The nurses (students) were very helpful but were, in most cases, unable to do anything since they had no authority to provide any alternative medication from that prescribed.
- Interviewer* Did they report it to the trained staff?
- Respondent* They said they had and when I actually spoke to the doctors they said yes, they were prescribing a different medication but, for some reason or other, it was never forthcoming at the appropriate time because my main problem obviously was that during the day it's much easier to put up with things simply because you can change position, you can move, you don't feel so hemmed in by your bed.
- Interviewer* So you didn't get much sleep?
- Respondent* No, very little.
- Interviewer* How many days before your operation were you admitted?
- Respondent* I was admitted one day before. I found the whole day a total waste of time because I went in at 10 o'clock in the morning and nothing was done until 5 o'clock in the evening.
- Interviewer* Did anyone tell you what was going to happen to you at the operation?
- Respondent* No, had I not consulted my own doctor about the operation, I would never have been aware of what it entailed. When I had gone originally to the hospital, they had simply said an

operation for duodenal ulcer. I assumed it was being removed. It was my own doctor who explained that they were simply cutting the nerves which control the acidity in the stomach, otherwise I would never have known. On the evening before the operation a doctor did explain at that point, when I was already in hospital, what was being done but he gave no indication of how I would feel afterwards. I assumed I would have the operation, perhaps feel a bit sore for a couple of days and then all would be past. I was not prepared for the amount of pain that there would be afterwards, definitely not, and I would have liked to be prepared for that.

Interviewer Did the nurses explain what would happen to you when you went to theatre?

Respondent The anaesthetist did. That's one thing I must admit, the anaesthetist was very, very kind. He explained everything. He came and visited every day afterwards for about 4 or 5 days and explained very clearly exactly what was going to be done in the way of anaesthetics, so on that score I must admit he was very, very conscientious.

Interviewer But what about the nursing staff, did you have any information at all from them?

Respondent No, they took it very much for granted, perhaps because I wasn't nervous at all. I had no idea what it entailed and therefore wasn't nervous. Perhaps had I been more nervous they would have spent time explaining or calming me, but I really didn't feel I needed any.

Interviewer You say you weren't nervous. If I said to you, 'Imagine a scale from 1 to 20, with 1 being not at all anxious and 20 being extremely anxious before the operation', what score would you give yourself?

Respondent Oh, I don't think more than 6 or 7, definitely. I was more upset at the fact of being away from my children for a week. The actual thought of the operation did not bother me at all.

Interviewer How long were you in for altogether?

Respondent From Sunday to Saturday, 6 days in all.

Interviewer Had you been in hospital before?

Respondent Only for pregnancies. I thoroughly enjoyed that.

Interviewer Have you ever had any painful experiences?

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Respondent No, simply childbirth.

Interviewer How would you rate this last experience postoperatively, very painful, moderately painful, or a little pain ...?

Respondent Extremely painful. I had no idea I could have taken so much pain for such a length of time, I really hadn't. I didn't realize. Quite frankly I couldn't believe it was happening at the time. I felt it had to stop at some point, there was so much discomfort. Not discomfort, that's the wrong word, pain. I can't say discomfort because it was very, very painful. The pain killers I was getting didn't seem to work. I don't know why but they didn't, they worked for everyone else.

Interviewer Had you been anxious about having pain before?

Respondent It never entered my head that I would suffer pain in the hospital. I assumed that sedation was so effective nowadays, it had never occurred to me that I would feel anything beyond twinges or slight aches, certainly not the throbbing and incessant pain that I had. It was 24 hours really.

Interviewer And the pain relief that you got, was that better than you expected, about what you expected, or less than you expected?

Respondent Oh, far less than expected. After the first 24 hours you are expected to sit up and put up with everything. I felt I was expected to. The pain relief that was available was not effective for me. They were willing to give tablets but they were no good to me. In fact, I think I felt worse. Everyone else seemed to find they worked. For me they certainly didn't.

Interviewer Did you mention it at all to the nursing staff?

Respondent Yes, I didn't have much of a voice after the operation but I did do my best to mention it to the nursing staff and in each case they said that this was what was prescribed, that the tablets were equally effective compared to the injection or whatever it was I had been given before, and that the injection was too addictive. I wouldn't be allowed injections any more and this was the only alternative.

Interviewer How many injections did you have, do you remember?

Respondent That I can remember. One that I am aware of, because I had been fighting rather groggily with night staff at that point. It must have been the night after the operation. I remember trying to argue that I was in pain and I would like something. I

remember them telling me it wasn't time, I couldn't have anything, and offering me two tablets and, I don't know why, I must have got it into my head that I had to have this injection at that point. I remember that very vaguely.

Interviewer This was the night of your operation?

Respondent The night yes, following the day when I had the operation. I must have been given some kind of sedation during the day but that I don't remember. I seem to remember opening my eyes at various points. The pain really started during the night after the operation.

Interviewer And are you telling me that the night staff refused to give you medication?

Respondent They said it *wasn't time*. I would be able to have something later. Eventually, they said, 'Right, we are going to give you an injection now', and I remember being turned over, given an injection and next thing I remember it was morning. But after that there were no more injections, I was simply offered two tablets.

Interviewer This was the day after your operation?

Respondent Yes, yes.

Interviewer And these were ineffective?

Respondent Oh yes, I tested them myself. I didn't know whether I was just being difficult, so when they removed the various tubes and I did feel slightly better but was offered a pain killer, I took them to see how I felt and I felt worse. I obviously couldn't tolerate these pain killers for some reason. I tried to explain this but nobody seemed to believe it. They seemed to work for everyone else and so they *ought* to have worked for me, but they didn't, they definitely didn't. I wasn't imagining it.

Interviewer So you are saying in fact that the nursing staff didn't believe you.

Respondent Yes. They didn't seem to believe that this could possibly happen. I caught the doctor at one point. I was utterly desperate and croaked to him because I couldn't speak properly, but I tried to make myself understood. I said that I had tried taking the tablets but they didn't work. I was having too much pain to put up with, could he *please* prescribe something that would help and he said, 'Oh, in that case we'll prescribe injections'. Well, when night time came, and round

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came the medicine trolley, no injection had been prescribed and I was offered the same two tablets which I refused because they made me feel worse; and that was it really. It was a battle until more or less the last day when I had begun to feel that I could do without something. I just wanted to get home and try to take paracetamol or Disprin or something that would act as a pain killer and, in fact, I think I got more relief with Disprin than I did with the famous two tablets.

Interviewer Did you mention this at all to the trained staff—to the nursing sister or the staff nurse?

Respondent Sisters I found were totally unsympathetic. The student nurses at least were ready to listen and, in fact, in cases agreed because I heard two say, 'You know, it's a shame when sedation has been prescribed, I don't see why it can't be given'. I remember that quite clearly at one point. Sisters, they had absolutely no idea of sitting down and listening — you would do this and you would do that and the pills must work — and no, absolutely no sympathy of any sort. They were very brisk. They seemed to see everything as a sick person's fantasy. I don't know — I found I got a lot more sympathy from the students, a lot more understanding from the students. They seemed to be able to relate better to your position than the sisters did. It was quite an eye-opener really, I now equate hospitals with *pain*, really, and before I thought they were fairly pleasant places, that they [the staff] were there to look after you. I must admit I have a different opinion now, totally.

Interviewer Nobody discussed pain with you before the operation?

Respondent No, no, no, no.

Interviewer Would you have liked someone to?

Respondent Oh, I think so, yes, because I don't think I am particularly intolerant to pain and I am sure I can put up with it as well as the next person. It's just the fact that it was so unexpected and it lasted for so long.

Interviewer And so unrelieved?

Respondent Yes, unrelieved, you almost felt like smashing your fist into something, simply to relieve the frustration of having to put up with this and not being able to get any help. I simply felt as if it was a nightmare and eventually I was going to have to

waken up and find myself somewhere else. I remember thinking that quite clearly at one point.

Interviewer When did you get out of bed, do you remember?

Respondent The day after the operation, yes.

Interviewer And were you offered any medicine before you got out?

Respondent No, no. Pain killers came only at particular times — at about 2 o'clock in the afternoon and then at night when the night staff came on. They were *very* fixed times, there was nothing in between.

Interviewer You had pain in between the drug trolley rounds?

Respondent Yes.

Interviewer Did you ask for pain relief?

Respondent I asked once after something had been done to the tubes in my stomach which brought on extra pain. I was more or less paralysed. I was finding it very difficult to walk and was told I would have to walk up and down, so I said, 'Could I have something to help?' and I got those two tablets after a lot of discussion with the sister on duty at the time. She said that moving the tubes shouldn't have caused any extra pain at all. It hadn't on one but it had on the other. I was having an awful lot of pain on one side which made it very difficult to move one leg and after a lot of discussion she seemed to go away and unlock something.

Interviewer Was the discussion with you or with the staff?

Respondent With me, with me.

Interviewer And how did you find her manner on that occasion?

Respondent Unsympathetic. This was *not* the time to take pain killers. Pain killers were given at certain times. I *certainly* shouldn't have any need of them at this point in the day.

Interviewer This is what she said to you?

Respondent Yes, yes. And I said, 'If I have to walk and I have been told that I have to walk, I can't walk unless I get something to help me ease the pain down one side, because since you have adjusted the tubes my left side is very much more painful and I find it difficult to move'. Eventually she did go and get something.

Interviewer Generally speaking, do you think that nurses care a lot about pain relief, they care adequately about pain relief, or they could care more about pain relief?

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Respondent Nurses?

Interviewer I mean generally, as a group.

Respondent As a group? I don't think it comes very high on the list of priorities, no. It didn't seem to. There's a lot of care taken in washing and changing beds and keeping things clean. But no, pain didn't seem to be considered at all really. No one ever said, 'Are you in much discomfort, are you having any trouble?' — not really. There were exceptions, obviously, but on the whole, I'd have to say no.

Interviewer Was there anything that you can remember that *was* helpful in relieving the pain the first few days after the operation?

Respondent No. Simply the injections which had been given immediately after the operation seemed to be the only thing that really worked and there was only one that I remember being given. No, nothing seemed to work. Oh, another thing. I wish I had been told that I would suffer so much with wind after. I had no idea. I couldn't understand what these awful pains were creeping up my back until one of the other patients told me, 'Oh, this is normal, you get wind after you've had an operation, it's very painful and you have to break wind in some way or other'. I'd like to have known about that because no one thought to tell me I was having wind pain as well as, I presume, the usual aches and pains you have after an operation and I couldn't understand what this was. It was left to other patients who had already had operations and they said, 'Oh, these are wind pains and if you try walking and bending and taking drinks of hot water it ought to help to relieve the discomfort'. I would like to have been told that before. I'd have known what to expect.

Interviewer Was it difficult for you to talk to the staff at all? Did you feel at ease asking questions of the nursing staff?

Respondent After I had been in about 4 or 5 days, yes. I was more or less comfortable when it was time to go home.

Interviewer When it was time to go home?

Respondent When it was time to go home I felt I could talk to people because, I think it's the same anywhere, when we see a familiar face we tend to open up a bit more. At first, no, no, there was nobody I could really speak to. Because of losing my

voice, I was at a disadvantage as well because I didn't feel like speaking.

Interviewer How did you indicate to the staff that you were in pain then? Did you screw your face up?

Respondent Oh, no, I could speak. I could whisper and they could hear but it was an effort talking and obviously I couldn't perhaps fight for things the way I might have if I had more of a voice and had it been less of an effort to speak.

Interviewer You remember earlier on when we were chatting, I asked you to choose a score between 1 and 20, 1 being not very anxious and 20 being extremely anxious?

Respondent Yes.

Interviewer Bearing in mind this recent experience, if you had to go into hospital again for a similar sort of operation, what score would you give yourself?

Respondent Assuming I went in the first place, it would be 20 definitely. I think I now have a *fear* of hospitals which I certainly did *not* have in the first place. On previous occasions I found hospitals very happy and pleasant places to be in, really. No, I really would be very unsure of ever going in again unless everything is explained and I know *exactly* what's going to happen first and have been assured that afterwards there will be the minimum discomfort possible, but I certainly would not go in very readily. It would have to be more or less a question of life and death I think.

Interviewer You sound as if you had a pretty bad time.

Respondent I didn't *believe* it. I didn't *believe* it was happening when it was happening. I really would have to talk to other people and find out if they felt the same way. I don't think they did. The other patients, they seemed to find, most of them, the pain killers were effective. I didn't, but people weren't prepared to believe it or accept that.

Interviewer Is there anything else you would like to tell me?

Respondent It's hard to think at the moment. I'm sure there are lots of things I would love to say, but memory is beginning to fade now and all the things I thought of immediately I came out are beginning to die down. One thing I could perhaps mention is the complete feeling of helplessness a patient has when in

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hospital. The layman simply doesn't realize what's going on. Doctors and nurses are so all-powerful and you are totally at their mercy while you are in. I remember lying there feeling that I had absolutely no power to do anything on my own. I was so totally dependent on doctors and nurses that I don't think perhaps they realize just how the patient sees them and how much in awe patients are likely to be of them. It's hard to explain. I think it may be fear, the fact that you are lying there and you cannot do anything for yourself. You know at any given time a doctor can order this or a nurse can say that and it will be done *without* you having any notion of *why* it's being done and *what* good it's going to do or how *painful* it's going to be. I think that's the main thing really, the fact that you are *totally* dependent on the nursing and medical staff or surgery staff whichever it may be.

Interviewer Were you happy to be dependent on them?

Respondent Oh no, no, no. I would have been initially, I assume but, as I say, having gone through these various days of pain, it suddenly came home to me that I really couldn't do anything but accept what was being done or not being done because I had no way of forcing my wishes on anyone or of explaining. I had to accept what was prescribed and what was said and all the rest of it.

Interviewer Did you feel that you were treated as a person, as an individual, or are you saying that you didn't?

Respondent Eventually. But while I was feeling very ill, no, not really. A body in a bed that had to be given this and that. You were treated very much like a child in lots of ways. Sisters tend to talk down to a patient, definitely. Doctors are a bit better but the sisters talk down to you. Maybe it's the way I speak to my children sometimes when they ask for something which I feel is quite impossible, but I usually give them an explanation as to why it is quite impossible whereas in hospital you are simply told, 'No, that can't be done'. That's it, without any reasonable explanation of why it can't be done.

Interviewer Anything else you would like to add?

Respondent Oh, one thing I found, yes, I must admit I remember this. After the operation you are expected to cough and bring up sputum. I have never been able to bring up sputum, I don't

know why, even when I have a terrible cold I can't. But instead of being helped, I was told by sister that I would end up with pneumonia and a chest infection and, when I was lying there just longing for it all to be over, the thought of adding a chest infection and being in for so much longer was so depressing I could have burst into tears. It was left to the physiotherapist to reassure me that when my tubes had been taken out I would find it so much easier to cough and that there was no problem. I did not have to bring up sputum, I simply had to cough enough to move it around. According to the sister, I was heading for bronchopneumonia if I couldn't bring up sputum and I was very upset at that point because I felt I had another thing on top of the one I already had. Oh, it was horrifying. I could see days stretching ahead with me adding one illness on top of another without ever any way of improving the situation. So that was one point I remember, feeling very depressed one afternoon having been told this by sister, just 2 or 3 days after the operation and before I asked the physiotherapist. When the physiotherapist came she explained things so clearly that I realized it was nothing to get panicky about. But I had been told, 'You either bring up sputum or you end up with a chest infection, one or the other'. There was no choice and I was going mad trying to bring up sputum and just not succeeding. I actually got screens put round my bed one visiting hour so that I could continue trying without being in full view of visitors and patients. Terrible, it was really frightening that. As it is you are feeling very low and very much in pain and ^{the} thought of getting some other kind of illness on top of it — oh. So that was a particularly low day I remember during the time I was in.

Interviewer And you didn't really feel that the sister was particularly helpful?

Respondent Wasn't helpful at all. You shouldn't menace someone who is already feeling down, it's no help at all. I'd say *gentle encouragement*, which is what physiotherapists tend to provide. They got an awful lot more results, definitely. You always feel weepy anyway when you can't eat and you can't do this and you can't do that, but to be threatened with another illness is certainly not the way to improve the matter. I

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remember feeling particularly resentful towards that particular sister ever after.

Interviewer Anything else you would like to add?

Respondent No, I think that's about it.

Interviewer Thanks very much indeed. Thank you for letting me come and for telling me your experiences.

It is always a sobering experience to hear a patient's views. Several points brought out in the interview highlight the many myths about pain and lack of knowledge among nursing staff, in particular the individual nature of pain and the importance of believing a patient who says he is in pain, together with the issues of accountability and communication in relation to nursing practice. The above account is one of tragic mismanagement of one individual's pain. Of course, this does not happen to every patient but, when it does, it can result in serious emotional difficulties, particularly if subsequent hospitalization is required. After the interview, the patient said 'I'm glad I've got it off my chest. I can concentrate on getting well again now'.

CHAPTER 2

TOWARDS UNDERSTANDING PAIN

Pain is what the patient says it is and exists when he says it does.
(After McCaffery 1983)

Meeting the challenge of pain control

Several disciplines in the fields of science, medicine and the behavioural sciences have made valuable contributions towards the study of pain in recent years. These contributions have improved understanding of the nature of pain and of the various treatments available for pain relief. For example, neurophysiologists have studied how the nervous system reacts to painful stimuli, pharmacologists have been interested in developing more effective analgesic drugs, and psychologists have worked towards clarifying man's behaviour in relation to pain. Despite these and other efforts to meet the challenge of pain control, countless people still suffer unrelieved pain. Pain is the source of much misery in people's lives and the cause of much time spent off work.

Defining pain

The perception of, and response to, pain are the results of complex interactions of many factors. For this reason there are difficulties in trying to define pain. People who care for patients in pain must appreciate that they are dealing with a wide range of biological and behavioural differences which it may not be possible to explain in any one way.

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Sternbach (1968) has described pain as a 'complex phenomenon, a signal of tissue damage threat, an integrated defence reaction and a private experience of hurt'.

The International Association for the Study of Pain Subcommittee on Taxonomy (1979) defined pain as: 'An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage'.

Both of these definitions allow for the subjective nature of pain. However, as far as nurses are concerned, because they are in most frequent contact with patients, an operational definition may be the most helpful and appropriate:

Pain is what the patient says it is and exists when he says it does.

(Adapted from McCaffery 1983)

We cannot feel what the patient feels, yet it is not uncommon to overhear staff making comments that indicate that they disbelieve a patient. It is important to recognize that every patient is different. An additional problem for patients suffering pain (particularly chronic pain) is that the different specialists who may see and treat them have different perspectives of the same condition. The neurologist may talk of nerve pathways, and the psychologist of the emotional aspects of the pain experience; each specialist perhaps not fully appreciating aspects of a patient's condition that do not fall within his own area of specialization. It is most important that those who care for patients in pain have a multidisciplinary outlook (Finer 1980). This does not mean that nurses must be expert medical and behavioural scientists, only that they should be aware of the complex nature of each patient's pain and of the fact that relief can only be effective if the treatment (or combination of treatments) is aimed at controlling all the factors involved.

Types of pain

There are three general types of pain — superficial, deep and referred.

Superficial pain

Superficial pain involves the skin or mucous membranes. The nerve receptors of superficial (or cutaneous) pain are many and can be activated by various stimuli which may be mechanical, electrical, chemical or thermal in

nature. The pain may be described as bright, pricking or burning and is usually localized.

Deep pain

Deep pain, originating within the body, may not be so well localized and usually has an aching quality. Nerve receptors for pain in the various organs are more widely spread than those of the skin. Stretching or tension may produce severe deep pain.

In both superficial and deep pain, impulses are transmitted by pain fibres running in the sensory nerves to the posterior root ganglia of the spinal cord, and from there to the cortex where they are interpreted as painful.

Referred pain

The impulses of referred pain also travel to the cortex where they are interpreted as painful, but pain is felt at a site other than that which has been stimulated. However, the stimulated site and that at which pain is felt are invariably supplied by the same or an adjacent nerve. For example, the fallopian tubes have referred pain in the shoulders and the appendix has referred pain in the region of the umbilicus.

The gate control theory of pain

The gate control theory of pain developed by Melzack and Wall (1965) attempts to explain the variation in perception of identical stimulation. The theory relies upon complex neurophysiological processes. Put simply, the idea is that there is a 'gate' in the spinal cord which, under certain circumstances, allows nerve impulses resulting from pain stimulation to pass through it and be felt (interpreted by the brain). When the gate is open pain impulses can flow through easily, when the gate is closed none can pass through. It is thought that the degree of opening of the gate may in part be influenced via connections with the central nervous system, thus explaining the effect of psychological factors (such as anxiety) on pain perception.

Although the theory has evoked controversy among both scientists and clinicians, it has done away with the idea that pain is simply a sensation transmitted by nerves to a pain centre in the brain and it provides a

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conceptual framework for the integration of the sensory, emotional and behavioural dimensions of pain. This has implications for the treatment of pain using combinations of physical and psychological therapies.

For further information about pain theories and the gate control theory in particular, the nurse is encouraged to consult the further reading list at the back of this book.

Acute and chronic pain

There are several areas where nurses have to face different problems in relation to pain management. Acute pain and chronic pain are different entities and must be treated differently. Management also varies according to patients' individual requirements.

Acute pain

Acute pain is pain that has a sudden onset and a foreseeable end. It is accompanied by fight and flight features such as dilation of pupils of the eyes, increased sweating, and increased pulse and respiration rate. Nurses encounter patients in acute pain in casualty departments, surgical wards and intensive care units. There are many techniques and drugs available for the relief of acute pain but, nevertheless, there is much room for improvement in their application. For example, postoperative pain is often suffered unnecessarily. This may be due to shortage of trained nursing staff (Campbell 1977). Allied to this is the fact that the protocol for drawing up and administering intramuscular narcotics is complicated and time-consuming. Delays may result in patients experiencing unrelieved pain (Nayman 1980). The personality factors discussed in Chapter 3 may add to the difficulties encountered. Furthermore, even if analgesics are prescribed to be given whenever necessary, patients may not be aware that pain relief is accessible (Campbell 1977).

Acute trauma

The need for pain relief varies with the site of injury. Abdominal injuries and long bone fractures cause the most pain, whereas head and chest injuries give the least (Clarke 1977).

It is of interest to consider two categories of patient who have suffered acute trauma, wounded soldiers and civilian casualties. There are important

differences in the way these groups react to injury (Beecher 1956). Soldiers may not report pain because they are relieved to be away from the battle area and pleased to find themselves alive. The civilian casualty, on the other hand, may feel very resentful, particularly if his injury occurred because of someone else's carelessness. Such a patient may need sedation as well as analgesia.

Chronic pain

Chronic pain is more of a 'situation', whereas acute pain can be regarded as an 'event' (Twycross and Lack 1983). Nurses encounter chronic pain particularly in medical wards and during home care. Its management presents many problems, particularly because of the effect it has on the lifestyle of people who suffer it. It is important to distinguish between chronic pain of nonmalignant origin and cancer pain.

Chronic pain of nonmalignant origin may be accompanied by sleep disturbances, loss of appetite and sex drive, constipation, preoccupation with the illness, changes in personality and inability to work. The approach to managing this pain has to be flexible and may possibly involve combinations of several treatments such as transcutaneous electric nerve stimulation, acupuncture and/or relaxation therapy (see Chapter 7). It is important to realize that chronic pain such as sciatica, low back pain and postherpetic neuralgia are not life threatening although the quality of a person's life is altered by having pain (Lipton 1979). Care must be taken in the prescribing of narcotic analgesic drugs as some patients may be likely to develop dependence. Some non-narcotic medications may be useful in reducing the level of pain. An important aspect to consider when dealing with patients suffering chronic pain of nonmalignant origin is the process of adaptation. Somehow, some individuals may manage to endure pain and carry on despite it. They may appear untroubled and may get through their work by means of sheer willpower, although there may be accompanying signs of depression. Staff may then, erroneously, be more concerned with the apparent depression than with the underlying unexpressed pain which is its cause.

Cancer pain is managed differently from chronic pain of nonmalignant origin. There is a need for carers to be aware that open communication between nurses, patients and doctors will be of help to patients in living their last days free from fear and anxiety. With cancer, one is dealing with a process of progressive change. It is important to review pain relief regularly

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because the pattern of pain may change. All aspects of body and mind comfort should be attended to. With cancer pain, patients may have both the fight and flight reactions normally associated with acute pain *as well as* insomnia, lack of appetite and sex drive, constipation, personality changes, preoccupation with symptoms and lack of interest in work. If cancer pain is not controlled, patients become very demoralized and wearied by suffering. Good management of cancer pain seeks to support the cancer patient by provision of adequate medication, rest and attention (Twycross and Lack 1983).

Wherever the nurse finds herself caring for patients in pain, be it in areas of acute care or in the management of chronic or terminal pain, it is important that she is constantly aware that pain is what the patient says it is and exists when he says it does. Judgemental attitudes, disbelief and withholding pain relief are not helpful when 'it hurts'.

Some problems faced by nurses in managing pain

When asked about problems they faced in trying to help patients in pain, groups of nurses identified the following difficulties.

For patients with acute pain

- 1 Lack of awareness among nursing staff of severity of patients' pain.
- 2 Fear among nurses of masking symptoms by analgesia.
- 3 Acceptance of analgesia regime without seeking alternatives.
- 4 Lack of recording of patients' pain.
- 5 Ignorance of drug efficacies.
- 6 Problems of communication between nurses, patients and doctors.

For patients with chronic pain

- 1 Referrals to several different specialities or doctors resulting in patients being given different and sometimes conflicting explanations and/or information.
- 2 Coping with patients' depression in general wards.
- 3 Helping patients to cope with life.
- 4 Physical manifestations of pain may not be present.
- 5 Frustration among staff.
- 6 Problems of communication between patients and staff.

For patients terminally ill at home

- 1 Helping the patient to cope.
- 2 Educating relatives and helping them to cope.
- 3 Communication between nursing staff and the general practitioner.
- 4 Difficulties of liaison with hospital.

For patients terminally ill in hospital

- 1 Lack of privacy for the patient.
- 2 Ignorance among staff regarding pain control.
- 3 Problems of communication between patients, relatives, nurses and doctors.

It is not within the scope of this book to cover all the points mentioned above. However, an awareness by nurses that these problems exist will go some way towards facing the challenge of pain control.

Summary

- 1 Several disciplines have contributed to the study of pain yet many people suffer unrelieved pain.
- 2 Pain is a complex subjective phenomenon. It is important to realize that everyone is different.
- 3 A definition of pain appropriate for nursing is 'pain is what the patient says it is and exists when he says it does'.
- 4 There are three types of pain, superficial, deep and referred.
- 5 The gate control theory of pain attempts to explain the variation in perception of identical stimulation.
- 6 Acute pain and chronic pain are different entities and their management is therefore different.
- 7 Judgemental attitudes by nurses are not helpful to patients when 'it hurts'.
- 8 Nurses themselves are able to identify several problems when caring for patients in pain.

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CHAPTER 3

THE UNIQUENESS OF THE INDIVIDUAL

The evidence shows that pain is much more variable and modifiable than many people have believed in the past. Pain differs from person to person, culture to culture.

(After Melzack and Wall 1982)

Psychological factors

There is no predictable relationship between pain and injury. Each individual's pain experience is influenced by his unique personal history, by the meaning he attaches to his pain and by his state of mind. People with the same or similar conditions will behave differently because of variation in background and personality. It is important for nurses to recognize this and to realize the crucial part that psychology plays in behaviour during illness.

Many nurses and health carers think that they, not the patient, can decide whether or not pain exists and, if it does, how intense it is. Some nurses may feel uneasy about believing a patient's statements about pain but, since we have no objective evidence for the diagnosis and treatment of pain, we must rely solely on the patient to tell us what he feels and whether the treatment is effective.

Sometimes patients adapt to pain both physiologically and behaviourally so that it is not easy for carers to see if a patient is suffering. Minimal expressions of pain may therefore be misunderstood. Sometimes the cause of pain may not be easy to identify and a patient's pain may be erroneously dismissed by staff, but we must accept that all pain is real, regardless of its

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cause, and that most bodily pain probably results from a combination of physical and psychological factors.

A knowledge of psychological factors associated with pain will be helpful to the nurse in understanding patients' reactions. Areas of psychology that are particularly relevant are personality characteristics and the relationship of anxiety and depression to pain. Anxiety is particularly associated with acute pain and depression with chronic pain.

Personality characteristics

Personality is the unique mix of intellectual and emotional qualities that each person reflects in his behaviour. It is helpful to know what a patient's personality was like prior to the onset of a painful illness or injury so that his behaviour or changes in behaviour can be understood. Pain is often regarded merely as a symptom of physical or mental illness. It is important that nurses deal with pain from *both* the physical *and* the psychological standpoints. The influence of personality on people's pain tolerance and pain thresholds has been studied by many researchers. In general, pain thresholds have been found to be lower for introverted people than for extroverts, but extroverts have tended to report pain more freely. In one study it was found that extrovert subjects received more analgesia than introvert subjects (Bond and Pearson 1969). In terms of emotionality, those who are most emotional have most pain (Bond 1979).

Extroversion and emotionality can be assessed using formal psychological testing, although it is not usual practice to do this for patients on routine admission to general hospitals. Even when using such testing, it may not be possible to identify with certainty those who will have most pain (Parbrook et al. 1973). It may be helpful though, to both staff and patients, for a nurse to ask each patient on admission how he sees himself in terms of personality. It can be useful for staff to have a record on the Kardex of how each patient usually reacts to illness and stress and his attitude to this particular admission. It is helpful for the patient to know that staff are *aware* of how he normally copes with pain. It should also be made clear to patients at this time what provisions will be made for pain relief. Staff take it for granted that they will provide some sort of analgesia but patients like to *know*. If nothing else, it lets the patient know that staff are interested in him as a person and in his well-being before, during and after a potentially painful event. This knowledge alone can have a pronounced effect in reducing

anxiety, particularly in overanxious people whose fear may be based, among other things, on fear of pain itself.

Anxiety

Most people become apprehensive when faced with a painful illness. Those who tend to be worriers by nature, when confronted by such an event, may become so anxious that they are overwhelmed. For these patients, pain may be greater because pain causes anxiety (particularly acute pain) and anxiety, in turn, may heighten pain perception.

It has been reported that preparing a patient in advance for surgery by giving information and by teaching coping techniques may help (Johnson et al. 1970). The underlying idea is that, if a person can understand better what to expect, this understanding will reduce his anxiety and, in turn, his pain. However, it is important to know something about the patient's feelings in relation to his normal anxiety level. A moderately anxious person may do a little 'worry work' which can be helpful in building up psychological defences to deal with the stress, but those whose normal anxiety level is either very high or very low may be at a disadvantage (Janis 1958). An overanxious individual may find difficulty in developing the inner strength to cope, whereas a very calm person may be quite disagreeably surprised by the inescapable stress and pain.

As far as nursing implications are concerned, it is important to try to identify *what* information would be helpful to individual patients as part of preparation for surgery or other potentially painful events. It should be noted, however, that the mental and emotional state of a patient can vary with time, and that this may have an effect on severity, tolerance and expression of pain.

Pain may be seen unconsciously by patients as punishment, as a symbol of rejection or as a way of asking for help. Just as it may be a warning to the body, so it may be interpreted as a warning to the personality. Most often, pain is perceived as a threat to body image, producing anxiety. The nurse must be aware of signs of anxiety which may manifest as restlessness, avoidance of discussion or hostility (sometimes labelled as uncooperativeness). The nurse should respond with kindness and understanding to such situations, as defensiveness may increase a patient's stress.

Depression

Some people respond to stress by feeling a little low while others feel a sense

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of despair. Patients in pain, particularly those who experience chronic pain and have had their lives altered by their inability to function socially and by difficulties with the activities of daily living, may experience considerable depression. Obviously, if a person normally has a tendency to feel low he will be more likely to suffer despair as a result of chronic pain. Coping with pain becomes even more difficult in these circumstances.

Other psychological factors

People who have a tendency towards hysterical, hypochondriac or obsessional behaviour may respond to pain in a variety of ways which can bring them into conflict with medical or nursing staff. This may present problems, especially when staff expect patients to conform to an expected pattern of behaviour. The influence of personality on pain thresholds and tolerance has important implications for nursing care. Knowing that there is a relationship between personality and pain may help the nurse in her attempts to individualize care.

Another point of particular note when considering psychological factors is the influence of fatigue. With prolonged pain, the patient gets more tired and there is an accompanying lowering of pain threshold.

Psychogenic pain

Psychological factors play such an important part in pain perception and expression that sometimes a patient may be labelled as having pain which is 'psychogenic'. In such situations the patient is presumed to need or want pain. Such a patient may undergo several surgical operations and be seen by many different doctors but no organic basis may be found for recurrent pain. For the patient, however, the pain is real and lack of relief, together with lack of understanding by carers, may lead to depression requiring psychotherapy. Sometimes family therapy may be helpful, especially if a patient 'uses' his pain to 'control' the family (Sternbach 1970). Of course, in addition, during the process of undergoing unsuccessful treatments or operations, a person's body may incur scarring and/or adhesions which may add to his pain problem. It is *most important* that the term 'psychogenic pain' is *reserved* for patients who have absolutely no physical finding and a definite psychological history that points in the direction of expressing emotional problems in terms of pain (Sternbach 1982). It should be noted that, for most patients experiencing chronic pain, the pain has an

underlying physical basis, with emotional and behavioural factors contributing in varying degrees to the perception and expression of pain. It has been shown that it is more usual for a psychological disturbance to be the result of chronic pain rather than the cause of it and that psychological manifestations may disappear after successful treatment of the pain (Sternbach and Timmermans 1975).

Psychiatric illness

A number of psychiatric illnesses such as depression and schizophrenia have pain as a symptom. If the psychiatric illness is treated successfully, the pain will often disappear.

The effect of learning on pain

The role that psychology plays in the pain experience of an individual is a complex one, dependent on physical or psychiatric illness, early life experiences, present environment, the meaning he attaches to pain and his cultural background. These factors add up to the learning experience which colours the patient's attitude towards his pain.

The reader might like to try the following exercise to illustrate the effect of learning on pain. Close your eyes for a few minutes and think back to your early childhood. Try to recall a situation where you experienced a painful event — perhaps you fell off your bike and hurt your knee or you may have burnt your fingers in a pot of hot water. Recall if you can, the reaction of a person who was with you or near you at the time — was it panic, anger, love or ridicule? What action was taken? How did you feel afterwards? Try doing this recall with some of your nursing colleagues and compare experiences and reactions. Early experiences such as these, as well as parental behaviour, colour everybody's future attitude towards pain. Together, these experiences constitute a patient's 'pain biography'.

So it is with patients facing stressful events — each person has a different learning experience to bring to his own situation.

Modeling

One aspect of learning is known as modeling (Bandura 1971). This refers to the idea that a person can anticipate the behavioural consequences of a situation through observing others, without having to experience it himself.

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Thus, he may subsequently base his reaction to his own experience on the behaviour of those he has observed. Patients may or may not express pain according to the social modeling that goes on in a ward. However, they do learn to lean on each other for support and for strategies of pain control. It is not uncommon for patients to say, 'Everybody is in the same boat'. Nevertheless, if a patient does not verbally express his pain and behaves as the 'social norms' of the ward dictate, it does not necessarily mean that his pain is being relieved.

Cultural factors

General observations of similarity in behaviour between members of the same ethnic group in relation to pain have led to the idea that cultural factors are an important consideration in the management of pain. In some cultures, rituals which we may associate with extreme discomfort seem to cause no trouble for the people involved, whereas in others, apparently trivial stimuli produce a marked response. Research has shown that pain tolerance levels do indeed vary from one cultural background to another (Sternbach and Tursky 1965). For example, people of Anglo-Saxon origin tend to accept pain in a matter of fact way, whereas people with a Mediterranean background are more expressive of their pain (Zborowski 1969). These reactions are closely related to early childhood experiences.

Our own culture tends to favour a high tolerance for pain, although, as in any cultural group, tolerance varies greatly from one patient to another and also in the same patient in different situations. For example, a patient may be willing to tolerate pain while his family is visiting so that he can communicate with them, but he is not willing to endure the same degree of pain at other times.

Some patients refuse pain relief because they have a high pain tolerance, whereas others are not willing to endure any pain for any period of time. Sometimes staff place a value judgement on a patient's tolerance without realizing that this is his own unique response to pain and that he is entitled to such a response. If a patient is a member of an ethnic minority, this could lead to unwarranted judgement of future patients from the same minority group. Such judgement would obstruct effective pain management.

The meaning of pain

There is also evidence to suggest that people attach meaning to their pain which may influence the intensity and duration of the pain they feel and

their readiness to accept or refuse medication. Some people may consider that the pain they are suffering is a form of punishment they must endure for past misdeeds, while others may say, 'What have I done to deserve this?'. A patient may refuse drugs because he believes they are a crutch, thinking that succumbing to sickness is a sign of weakness and that self respect can be maintained by rejecting help (Amarasingham 1980). Patients who believe in certain systems of values may be resistant to accepting advice. For example, Puerto Ricans in New York classified food, medicines and bodily states according to whether they were hot or cold. Hot substances were used to treat cold conditions and vice versa. Rashes and diarrhoea were considered hot and should therefore be treated with cool foods or medicines (Harwood 1971).

Some suggestions for the psychological support of patients in pain

- 1 Develop a relationship with a patient which gives the patient an opportunity to discuss his feelings.
- 2 Try to find out from the patient how he sees himself in terms of personality. This will give you some clues as to how he may be helped to cope with stress and/or pain.
- 3 Provide the patient with information about what he will experience in terms of hospital routines and procedures.
- 4 Discuss with the patient how he feels about analgesia. For example, does he have any coping strategies of his own which he would like to try out? Emphasize the availability of pain relief as part of nursing care.
- 5 Involve the patient as a *partner* in this effort and not as a *dependant*. In this way you will give him a sense of *control*. For the patient, this sense of control, both in acute and chronic pain, will decrease pain intensity and improve the quality of the patient's life. Many psychological strategies taught to patients, such as relaxation, are aimed at giving the patient greater control over his pain. These are discussed in Chapter 7.

Allowing for individual variation

There is a great danger of stereotyping patients. Nurses *must* make allowances for individual variations in relation to pain expression and the response to various therapies. Above all, nurses must avoid labelling patients as 'good' or 'bad', 'cooperative' or 'uncooperative'. The world is made up of millions of unique individuals. We have to *accept* that there are

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innumerable combinations of personality, childhood experience and cultural background. Our response as nurses must be to individualize pain relief. This means accepting that the patient's pain is what he says it is (a unique perception of his unique physical and psychological self) and that it exists when he says it does.

Summary

- 1 There is no predictable relationship between pain and injury.
- 2 We must rely on the patient for reports of his pain and the effectiveness of treatment.
- 3 Sometimes patients adapt to pain both physiologically and behaviourally.
- 4 Personality characteristics influence pain tolerance and pain threshold.
- 5 Anxiety is associated with acute pain and depression with chronic pain.
- 6 Anxiety heightens pain perception.
- 7 Preparing a patient in advance for surgery by giving him relevant information may reduce anxiety.
- 8 Pain is fatiguing.
- 9 The term psychogenic pain must be reserved for patients with no physical findings and a history of psychological problems.
- 10 Each person has a different learning experience to bring to his own painful situation.
- 11 A patient's behaviour may be influenced by behaviour that he has observed in others.
- 12 Cultural factors play an important part in pain expression.
- 13 People attach different meanings to pain.
- 14 Nurses should support patients psychologically by
 - a Developing relationships
 - b Finding out how the patients see themselves
 - c Providing information

- d Discussing analgesia
 - e Involving the patient in treatment
- 15 Nurses should allow for individual variation in response to pain and its treatment.

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CHAPTER 4

THE UNIQUE POSITION OF THE NURSE

I envy for our medical students the advantages enjoyed by the nurses who live in daily contact with the sick.

(Osler 1947)

Nurses, more than other health carers, have the opportunity to develop close and fulfilling relationships with patients. In this respect nurses are in a unique position to assess the physical and psychological well-being of patients, especially in response to treatment, and to communicate this information to each other, their medical colleagues and other members of the caring team.

Nurses' own beliefs and values

As discussed in Chapter 3, a patient brings to each painful situation his past experiences of pain, experiences coloured not only by his own personality but by the behaviour of those around him at the time. However, the patient is not alone in bringing a pain biography to a current situation, since those who care for him also have pain biographies. In some situations this might be of help to a patient but in others it may not. For example, a nurse who has suffered pain herself is likely to have a greater understanding of a patient's pain than one who has not, while a nurse brought up to believe in a 'grin and bear it' attitude towards pain might not find it easy to empathize with a patient. A patient who comes into hospital is thus faced with a team of carers who may have different attitudes and values in relation to pain, its

expression and control. A key person in British hospital wards is the charge nurse, whose attitudes and beliefs influence whether or not a patient receives the best possible pain relief, firstly through her reports to the medical staff about the patient and, secondly, because of her responsibility and power in relation to interpreting administration times for drugs or other therapies. Again the danger is one of interpreting a patient's needs in accordance with set routines or inbuilt personal values about pain whereas, of course, patients' needs are as individual as they are themselves and pain relief should be administered accordingly.

Personal judgements

Nurses may make personal judgements of patients' suffering based on their own beliefs. The following extract is quoted from Davitz and Davitz* and illustrates how feelings and behaviour were affected as a result of personal judgements:

On the unit, she (the nurse) attended two mothers. One had a normal healthy baby girl and the other gave birth to a boy with a cleft palate. Both mothers reacted negatively to the births. The mother of the baby girl had wanted a boy. She was hysterical, refused to see the infant, and became withdrawn and hostile. The mother of the baby with a cleft palate displayed equally violent reactions. She, too, rejected all contact with the infant and staff. The nurse reacted to the mother of the baby who had a cleft palate with great sympathy and understanding. 'I went in to see her and no matter what she said or did, I knew I had to stay and help. She needed us, though she fought against all the help we tried to give'. The mother of the girl received routine care. 'It drove us up a wall to hear this woman carrying on the way she did. She was lucky she had a healthy baby. For her to complain didn't make sense. All of us could understand the feelings of the woman who had a baby with a cleft palate—but this woman kind of made us angry. None of us felt like rushing in to see her when she called'. Each of the patients felt distressed. From the mothers' points of view, the psychological strain of the disappointing births might have been comparable. However, from the nurse's point of view the situations differed. The two women simply weren't seen as suffering the same degree of psychological distress. The nurse's reactions were not determined by differences in the behavior of the two women. As a matter of fact, the two mothers apparently behaved in very much the same way. Thus, it was not the patients' behavior that made the difference, but the nurse's beliefs about suffering. She didn't believe that the mother who was disappointed with the sex of her baby could suffer as much as the mother of a baby born with a cleft

*In RN, The Full-Service Nursing Journal. Copyright (C) 1975 Medical Economics Company Inc., Oradell, N. J. Reprinted with permission.

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palate. The crucial difference in the matter, therefore, was the nurse's system of beliefs about suffering.

The same authors studied nurses' inferences of suffering by asking nurses to rate the degree of physical pain and degree of psychological distress of patients suffering from 15 different illnesses and injuries. They found that nurses have some common beliefs about suffering:

Results show that a patient's socioeconomic status, age, and ethnic background are important determinants of the amount of suffering likely to be inferred by a nurse. For example, lower class patients were generally seen as suffering greater physical pain than middle or upper class patients. For instance, an unskilled laborer with thrombophlebitis was seen as experiencing greater pain than either a teacher or bank president of the same age and sex. Nurses saw male and female patients suffering equivalent degrees of physical pain and psychological distress. However, when sex was considered in relationship to social class, the fact that a patient was male or female did make a difference. For example, lower class women were seen as suffering more physical pain than lower class men who had the same illnesses or injuries and were the same age. However, the reverse was true for upper class women and men. Upper class women were seen as suffering *less* physical pain than upper class men. Ethnic background of the patient also influences the degree of inferred suffering. Among six ethnic groups considered (Jewish, Negro, Oriental, Mediterranean, Anglo-Saxon/Teutonic and Spanish), Jewish patients were consistently rated as having the greatest physical pain and the greatest psychological distress. Spanish patients were second; Anglo-Saxon/Teutonic and Oriental the lowest. Thus, regardless of age, diagnosis, or social class background, Jewish patients were seen as suffering significantly more pain and psychological distress than other patients.

The researchers concluded that it is important to recognize that belief systems about suffering exist because these systems have a potential influence on interactions between patients and nurses insofar as nurses may have preconceived notions or expectations regarding the pain and psychological distress of patients. Davitz and Davitz also reported an instance where one nurse mentioned her reaction to an Oriental patient who was crying in a casualty department. The nurse had observed stoicism in Oriental patients previously and felt taken aback when she was confronted with someone who did not fulfil her expectations.

Another study has shown that nurses were less responsive to men than to women patients in terms of reports about their pain (Pilowsky and Bond 1969). Men rated their pain as more severe and asked for pain relief more often but nurses actually gave them less medication than the women. There was an expectation by the nurses that pain should be tolerated more by men

than by women. One explanation is that since most nurses are women, they are more able to identify with other women. However, some nurses may feel the opposite — that women exaggerate pain, therefore it may be easier to believe men. We all have our own beliefs, but we must be *aware* that we may be wrong and so avoid imposing our values on patients.

On the other hand, bringing prior knowledge (rather than prejudice) to a situation may be helpful. For example, if a certain illness is usually very painful, then the nurse can be on the look-out for signs of distress. Nevertheless, as already pointed out, we should be aware of the dangers of stereotyping because it can lead to misunderstandings. It is important that nurses examine their own beliefs and values about suffering and learn to be on their guard for misperceptions and misunderstandings.

Incongruence of beliefs and values within the caring team

It is not uncommon for members of the caring team to disagree on how best to provide pain relief for a particular patient. It is sometimes found that the more junior staff are more compassionate towards patients, but unfortunately also the most powerless. The following anecdote, from the interview reported in Chapter 1, illustrates this point. The student nurses knew the patient was in pain and were sympathetic. They reported the patient's pain to the charge nurse who came and said, 'This is *not* the time to take pain killers. Pain killers are given out at certain times and you certainly shouldn't have any need of them at this point in the day'. The patient felt that pain did not come very high on the list of priorities. Washing people, changing beds and keeping things clean seemed to be regarded as more important, at least to those with authority.

The patient who is in pain just wants relief. Nurses who are not in a position to sanction relief, or request review of analgesic requirements by the doctor because of their lack of seniority, can be made to feel helpless and stressed. It is not uncommon for junior nurses to apologize to patients by saying something like, 'I'm afraid you're not due your pain killers yet' or 'The drug trolley will be around in half an hour'. If a patient reports pain to a nurse before the time when medication is due according to the prescription, then the nurse in charge *must* consider it her responsibility to inform the doctor with a view to increasing the efficacy of the medication. Doctors rely on nursing colleagues to report patients' pain because they themselves cannot be on hand 24 hours a day to assess with the patient his individual requirements (see Chapter 6 on assessment).

Responses to and expectations of patients' behaviour

Sometimes nurses' concern about a patient's distress is related to the medical diagnosis or to the type of operation the patient has had. For example, pain following minor surgery may be dismissed because of the simplicity of the surgical technique involved, whereas someone who has undergone a more complicated surgical procedure may evoke more attention. The nurse, without paying attention to what the patient himself is experiencing, may feel that the latter type of operation should result in more pain. One ex-patient, herself a nurse, reported pain in her chest to the nursing staff on her admission to hospital. No pain relief or sympathy was forthcoming until a diagnosis had been made.

Illnesses or procedures have different meanings for different people, and these may affect their pain behaviour. Someone, for example, may be so relieved at undergoing a hysterectomy following years of unpleasant symptoms that the postoperative pain may be much better tolerated than that experienced by a patient who has undergone another form of surgery but who has had no previous symptoms. Nurses should therefore not have rigid expectations of the way a patient with a given condition should feel. For example, it is not helpful to make remarks such as, 'Mr Jones had the same operation 2 days ago and he is up and about' or, prior to a procedure, 'You should be up and about in 24 hours'. If patients have difficulty in meeting these expectations they may feel a sense of failure.

Prejudice on the part of the nurse may be related to patient adaptation. In this situation a patient's pain may be less socially visible and the patient is consequently regarded with suspicion. Hackett (1971), a psychiatrist interested in treating patients in pain, has written:

The individual stands before you in the examining room calmly and coolly describing the agony he is in and your first response is to doubt that he suffers as much as he claims.

It is important to remember that whereas the patient may have adapted his behaviour, the pain may remain at the same intensity.

In relation to painful procedures, sometimes nurses say, 'You won't feel anything', or 'This will hurt a little', or 'It shouldn't be *that* sore'. It would be more helpful to patients if the nurse said something along the following lines: 'This may be painful for some people — let me know how it is for you'. In this way, the patient is not embarrassed into conforming with the nurse's expectations of him and is allowed to express *his* own experience.

One difficulty often voiced by nurses is in assessing the efficacy of analgesic drugs. If a patient reports pain prior to the time when the next dose of medication is due, he should not be made to feel that he is reacting in an inappropriate way. There is much evidence, particularly in relation to relief of postoperative pain, to suggest that undertreatment of patients is alarmingly common (Marks and Sachar 1973, Cohen 1980, Weis et al. 1983). A patient's behaviour should *not* be thoughtlessly compared to that of other patients who have undergone the same or similar operations.

Both the efficacy and duration of action of a drug can vary from one patient to another. This problem is often compounded by standard prescripational frameworks such as the 'magic' four-hourly regime. Nurses often expect patients' behaviour to conform to this regime. Sometimes, if patients manage to conform, they are labelled 'awfully good' and if they do not, they are labelled as 'uncooperative' or 'complaining'. One staff nurse said, 'Before I learnt about the individual nature of pain, I classified patients according to their operations and expected them to behave alike in relation to their pain relief requirements'.

Learning about pain relief

It may be worth digressing here to comment on this staff nurse's remarks. Perhaps the most significant factor contributing to lack of awareness of the importance of pain relief among health carers is the lack of education on the subject of pain and its relief in student curricula. Since man's fear of pain is associated with his fear of death (Sternbach 1968), this lamentable situation must be remedied both during basic training and by postbasic continuing education programmes. Trained nurses act as models for less experienced nurses. If trained staff are poorly informed on current research and theory in relation to pain and its relief, then the status quo of lack of knowledge and ill-founded myths will continue. One staff nurse commented, 'For years I've been handing out analgesics, never thinking about whether they were effective or not or how long they lasted'.

If a nurse is well informed on aspects of pain management, however, she could use the combination of her unique position as a carer, together with her knowledge, to increase her own confidence. She would be placed in a better position then to exercise professional accountability and responsibility, themes that are becoming generally accepted principles in nursing. These themes are discussed in the next chapter.

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Summary

- 1 Nurses are in a unique position to communicate with patients, each other and medical staff.
- 2 There is a danger of nurses interpreting a patient's needs in accordance with their own in-built personal values about pain.
- 3 Incongruence of beliefs and values within a caring team may not be helpful to the patient in pain.
- 4 Routine drug round administrations may not meet the needs of patients who suffer pain.
- 5 Staff may have expectations of a patient's pain response to a particular disease or procedure.
- 6 Even if a patient adapts to pain it may remain at the same intensity.
- 7 The efficacy and duration of action of a drug can vary from one patient to another.
- 8 Being well informed about pain management will increase a nurse's confidence.

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CHAPTER 5

ACCOUNTABILITY, RESPONSIBILITY AND COMMUNICATION

It sometimes seems that we are more concerned about minimising patients' expression of pain than the pain itself.

(After McCaffery 1983)

Accountability

Pain relief tends to be a low priority. For whatever reason, the lack of education or perhaps the organization of the system, members of health caring teams do not always hold themselves or each other accountable for relieving pain. Doctors write prescriptions. Nurses administer analgesics, but may not question in their own minds the efficacy or suitability of a medication for a particular patient and may be reluctant to draw the attention of any shortcomings of the treatment to the doctor. If nurses do not involve themselves, the doctors' task will be made extremely difficult and sometimes impossible. One patient's comments illustrate the point of how sometimes analgesia is prescribed but not forthcoming when patients need it:

Once or twice I asked a nurse for tablets for the pain or for something to help me when I felt sick, but an hour or so later I was still waiting. Nobody ever came near me and I didn't know whether to ask them for anything again because nobody seemed to bother. You could ask a nurse something and she'd say, 'Right, I'll go and get sister' but nothing happened and you still weren't any better off. So half the time I thought there wasn't any point in asking them.

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On the other hand, nurses often appear to control patients' *expression* of pain. A patient may be encouraged to 'Get hold of himself' or 'Not disturb other patients'. Sometimes a patient may feel uncomfortable about 'Bothering the nurse' because he has been told he can only have medication at certain times. This can be a particular problem at night when pain may keep him awake. It is not unknown for nurses to report that a patient had a 'good night' but for the patient to report that pain kept him awake. It sometimes seems that we are more concerned about minimizing patients' expression of pain than the pain itself. Patients may sometimes be suffering in silence. The question of accountability for pain relief is therefore most important for nurses. Being accountable means realizing that we must share in a partnership with each patient. If a partnership exists, then the patient has a right to judge if the care is satisfactory. The pain is the *patient's* subjective experience. Nurses must be able to offer the patient the opportunity to choose what may suit him best. This requires having a wide knowledge of coping strategies. More particularly, it requires attitudes on the part of nurses that allow patients to have control over their own pain and to maintain their self respect. Patients should be encouraged not to feel that they must inevitably suffer pain.

Responsibility

Within certain limits, a nurse can choose how she moulds the situation in which she finds herself. She can either make active efforts to *change* situations and circumstances for the benefit of patients or to remain ambivalent. For example, the nurse's interpretation of a prescription written four-hourly 'When necessary' can affect whether a patient suffers unnecessary pain or not. If the nurse interprets such a prescription to mean that she gives medication at the traditional drug round times only, she will deprive those patients whose requirements do not match her drug rounds. If, on the other hand, she assesses pain relief on an individual basis, patients are likely to benefit from pain *control* rather than pain *relief*, the implication here being that patients will be free from peaks of pain that occur as the effects of the drug wear off. Obviously, it takes time for each drug administration to have an effect, so patients could experience a considerable duration of pain if analgesia is only administered when pain becomes severe.

A further point is that nurses record that an analgesic drug or other pain relief measure has been administered but they seldom record the effect. Nurses should record and report pain in much more detail than is often

done. If this were the case, then at the end of each shift the information collected would be helpful to the new shift of nurses in ensuring good continuity of care. It is also important to note how long it takes for a dose of medication to have an effect, how much relief it provides and how long the relief lasts. In addition, it is valuable to know how the medication was tolerated by the patient, and essential to know of any adverse effects. This information is not only of help to nurses but of inestimable value to the medical staff.

Responsibility lies in the provision of human caring in general and the concerned provision of adequate pain control in particular. This should be based on a relationship between patient and nurse which gives the patient 'space' to share in the decision making. To achieve this requires skilled communication with nursing colleagues, patients and doctors.

Communication

It is important to be aware that trust, respect and empathy are essential to good communication. One reason why pain control may not be achieved is failure on the part of the nurse to realize that she has an important part to play. On the other hand, a nurse *may* realize the importance of her own role but the process of communication with others may present difficulties. This might occur because of the organizational setting or, as mentioned earlier, because a nurse brings certain of her own subjective experiences to the situation. In hospital settings, staff take for granted the day-to-day routines and this may blind them to some of the important aspects of interpersonal communication (Fagerhaugh and Strauss 1977).

Some patients do not like to express their pain verbally. Others may find ways of distracting themselves, e.g. by knitting or watching television. Because they are occupied, they may not *appear* to be in pain, but we must not assume that pain is not present simply because their behaviour does not suggest that they are suffering.

Communication may be affected by the use of technical jargon and by health carers sometimes limiting themselves to giving information in a controlling way when communicating with patients in pain (Dangott et al. 1978). One suggestion is that health carers should behave in a way that allows the patient to express himself in his own terms. For example, rather than *telling* the patient what a procedure may feel like, it would be more appropriate to allow him to express his *own* feelings in an atmosphere of openness, honesty and trust.

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Nurses and doctors

The interaction between nurses and doctors is of great importance in pain control. Sometimes relationships are less harmonious than they might be and expectations of each other may be unrealistic. Doctors rely on nurses for reports, and nurses may be able to help the doctor to see the patient's point of view. Sometimes, however, nurses do not like to 'question' a doctor's 'judgement' of a situation; yet no doctor would wish a patient to suffer and most welcome recognition by a nurse that analgesia is ineffective. The following anecdote (Sofaer 1983b) illustrates a sad lack of communication:

A senior charge nurse complained that one of the anaesthetists had been prescribing the same amount of postoperative analgesia on a four-hourly 'as necessary' basis for 30 years. 'It's not a satisfactory arrangement', she said, 'Sometimes a patient requires the medication more frequently and at other times in an increased dose'. When asked why she could not simply request the doctor to be a little more flexible in his prescribing, or request a change of prescription by the houseman, she said, 'It's hospital policy that the anaesthetist writes up the postoperative medication for the first 24 hours' and 'We've been working together for 30 years and it's impossible to fight with him'. It was suggested that she might try using a postoperative pain assessment chart (see Chapter 6) and seeking the anaesthetist's assistance when analgesia was not effective. When the anaesthetist was told that the ward would be trying out an assessment chart, he said 'That's a good idea. I always prescribe four-hourly 'as necessary' for the first 24 hours and I am always concerned that patients may suffer unnecessarily because the staff don't know how to interpret the prescription on the basis of individual needs. Nobody ever phones me! I've been working with the charge nurse for 30 years now and it would be quite impossible to tell her what to do'.

Even after 30 years of poor communication between two professional people, both of whom 'cared' in their own way, it was possible to improve postoperative pain management by making the recording of pain more systematic. In addition, a teaching programme was implemented on the ward, aimed at increasing knowledge and awareness of staff. This combined approach may have helped them towards increasing responsibility and accountability in this area (Sofaer 1983a).

Nurses sometimes *blame* doctors — doctors sometimes *blame* nurses. It would be more helpful to find ways of communicating in an understanding way, recognizing that trust and respect are beneficial all round, especially to the patient. Twycross and Lack (1983) have also emphasized the importance of teamwork in the relief of pain, particularly in terminal care.

Keeping the patient informed

One aspect of communication often important for patients' peace of mind is the need for doctors and nurses to explain, in terms that a patient understands, the physiological or pathological basis for pain. Patients may sometimes have mistaken ideas of the pathological processes involved and these can be more terrifying than the actual disease. For example, I recently encountered two patients who were very concerned about their future bladder (urinary) function having undergone cholecystectomy. They thought that the gall bladder was part of the urinary system! Simple anatomical drawings or illustrations can obviously help to dispel such misconceptions. A brief summary of any explanation given can be written in the case notes and nursing Kardex so that colleagues will be aware of what has been done and of any metaphor or analogy used.

Summary

- 1 Pain relief tends to be a low priority.
- 2 Nurses must assume accountability for providing pain relief.
- 3 If a nurse assesses pain on an individual basis, then a patient is more likely to benefit from pain *control*.
- 4 A record of both the administration and the effect of an analgesic would be helpful to a new shift of nurses coming on duty.
- 5 Trust, respect and empathy are essential to good communication.
- 6 Good interaction between nursing and medical staff is important for patients' pain control.
- 7 Appropriate explanations of the physiological or pathological basis of a patient's pain may contribute to his peace of mind.

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CHAPTER 6

ASSESSING PAIN

When we can assess the patient's pain accurately, we can treat it more effectively.

(McCaffery 1983)

Recognition of pain cues

The process of pain assessment requires active effort on the part of the nurse and must begin with the recognition that pain is a subjective experience. In order to provide relief for a patient, the nurse must be able to recognize 'pain cues' and to evaluate the extent of the suffering. The task is not an easy one and even very experienced nurses may underestimate the severity of a patient's pain. One reason for the difficulty is that both patients and nurses have values and beliefs that vary on how one is expected to react to and report pain. For example, a nurse may expect a patient to show objective signs of pain. These may include elevated blood pressure, increased pulse and respiration rates and perspiration. She may expect a patient to communicate his pain verbally, or she may expect a patient to show signs of pain through non-verbal behaviour such as writhing or restlessness. However, although these cues may be present in some patients, lack of expressions of pain or lack of objective signs of pain does not necessarily mean lack of pain. Patients may adapt to pain both behaviourally and physiologically, perhaps because they place a high value on self control, so that signs of suffering may be suppressed. Furthermore, because illness and

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pain are fatiguing, sometimes patients react by being quieter than usual and by lying still simply because they are too tired to do otherwise.

Coping strategies of patients

Some patients may show minimal response to pain because they have devised their own coping strategies for distracting themselves. Under certain circumstances, nurses may not fully appreciate that a patient is watching television, knitting or listening to music to take his mind off his pain. Often patients do not tell the staff about the methods they have devised to cope with pain, with the result that a decrease in pain expression may be misinterpreted by staff as meaning that pain has diminished or disappeared. For some patients, the expression of pain would make them feel ashamed or embarrassed.

Pain tolerance

Pain tolerance is the intensity of pain that an individual is willing to accept without seeking relief. Sometimes patients are referred to by staff as having a low pain tolerance. This may be disapproved of by some nursing staff who themselves value stoicism and admire people with willpower. This judgement may interfere with a nurse's assessment of pain and militate against effecting relief. A person's ability to tolerate pain may be affected by the psychological and cultural factors that have been discussed earlier, including anxiety level and past experiences.

Nurses' acceptance of patients' statements

Although every patient may not spontaneously verbalize his pain, what matters for the patient who does is that the nurse accepts his statement. This may mean that occasionally a nurse is caring for a malingerer but it rules out the possibility of a patient suffering unnecessarily. On the other hand, many people who experience chronic pain learn to control the expression of their pain and it would be a mistake to regard these patients as malingering on the occasions when they may complain.

Difficulties of assessing pain

In one study nurses were asked to describe one patient situation in which it

was difficult to assess pain and one in which it was easy. In general, nurses reported that physiological signs and behaviours were easier to note in assessing pain than verbal reports from the patient. Nurses did not rely so much on the patient's own reports of pain, even though the most reliable indicator of how much pain a person is experiencing is his own verbal subjective report (Jacox 1979). However, this does not mean that subjective reports are the only ways of assessing pain. We must *begin* with the recognition that pain is a subjective phenomenon and include the many factors influencing pain in our evaluation.

Misconceptions that may hamper assessment of pain

The amount of tissue damage is not an accurate predictor of the intensity and duration of pain that a patient may suffer. Sometimes staff may think that patients undergoing similar surgical operations will experience the same intensity and/or duration of pain. The gate control theory of pain proposed by Melzack and Wall (1965) suggests that pain perception may be altered by cerebral influences. Past experiences, anxiety level and the context of the trauma may therefore influence a person's response to pain. The study of wounded soldiers in World War II referred to earlier (Chapter 2) showed that only 25% of badly injured men complained of pain or requested analgesia, whereas in a group of male civilians undergoing surgery, 80% required analgesia although their tissue damage was similar to that of the soldiers. The soldiers may have seen their wounds as a way of releasing them from duty at the front line and, because they sustained their injuries in a heroic context, they experienced less pain than the civilians who saw surgery as an interruption of their daily lives (Beecher 1956). A more recent study of patients who underwent appendectomy in Lebanon following the war in 1975–1976 showed that these patients required less analgesia postoperatively than a similar group of patients who underwent similar surgery before the war. The findings implied that patients' perception of pain had changed due to the psychological trauma of war, resulting in patients requiring less analgesia to relieve postoperative pain (Armenian et al. 1981).

Routine and tradition

Assessment of pain is further hampered by 'routine' drug rounds in hospitals and/or caring institutions. This routine places constraints on

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patients who may feel they have to ask for analgesics at that time, or accept them if offered. This may be done simply to comply with the ward routine or because a patient knows that the trolley may not be round for another 4 hours and that he could experience pain before then but not want to bother a nurse. One patient mentioned that she missed the 6 pm trolley because she went to the bathroom. She said, 'I was in agony —I thought the nurses would come back and ask me if I needed pain killers but they didn't. I think they must have been very busy and I didn't like to ask, so I waited for the night nurses' drug round'.

Should patients be expected to gear their pain relief requirements to hospital routines? Good assessment of a patient's pain may reveal that his requirement is either more or less than that which is made available to him from the four-hourly drug trolley round.

Individualized assessment of pain

One argument that has been offered by nurses against individualized assessment of pain is that medical staff often prescribe analgesia 'four-hourly' (which may be true even though duration of action of an analgesic is less than 4 hours). This does not mean that the nurse must interpret the time of administration necessarily to coincide with routine drug rounds. The whole point of pain assessment is that it will reveal whether or not the prescriptive framework within which a drug is administered is appropriate for an individual patient. If not, the medical staff can be approached and asked if they would be willing to alter the prescription, either to increase or decrease a dose or to increase or decrease the frequency of administration, or to prescribe an alternative analgesic with a different intensity or duration of action. One staff nurse using pain assessment commented, 'Each patient's assessments show a different pattern and their individual requirements vary'.

Responsibility of the nurse

Because of the individual nature of pain and the variation in its expression, nurses must be prepared to accept some of the responsibility in identifying when a patient is in pain. One way of trying to overcome the difficulties is to use a pain assessment chart (see below).

The main advantage of having a written record of pain assessment is that it improves the chance of decreasing suffering by facilitating communica-

tion between patients, nurses and medical staff. In one ward where pain assessment has been recorded as part of a research project on the management of postoperative pain, a staff nurse said, 'I feel much more in control of the situation now than before. I am less anxious myself about the possibility of patients suffering unnecessarily. The assessment chart is easy to use and has helped us all to control pain before it gets severe'.

Learning what a patient is experiencing

In order to be effective in her intervention, the nurse must not only be observant, she must be able to examine the factors influencing the patient's pain response and minimize her own prejudices about how pain should be tolerated. There is also the need to find out how the patient usually deals with pain and to enlist his assistance in assessing the pain and in finding ways to relieve it. Above all, a nurse must always be willing to listen to a patient in an empathetic way and to accept that only the patient can really know what hurts, when it hurts and how much it hurts.

Assessing the pain with the patient

Pain is assessed *with* the patient and not *on* the patient. This is a very important point because the patient's own estimate of pain must be used as the basis for treatment. The nurse should not allow her own experiences of pain, or her observations in other situations, to influence the assessment.

Figure 6.1 illustrates a pain assessment chart showing how one patient's pain was assessed and relieved effectively following surgery. Figure 6.2 illustrates a chart showing how moderate pain was not relieved, even though the nurse making the assessment informed the medical staff that analgesia was not effective. This patient experienced considerable suffering.

Protracted or chronic pain

In assessing protracted or chronic pain, a body chart may be helpful to the patient in locating pain. It also provides a means whereby the site of pain can be documented. You can make up a body chart by drawing a simple outline of the front and back views of the body. A patient may then be asked to indicate the site of his pain by marking the chart. Any changes can be noted on subsequent charts and recordings may be made of any action taken to relieve the pain. To elicit descriptions of pain and to assess changes in the

PAIN ASSESSMENT CHART										Sheet No. <u>1</u>				
Ward <u>Z 8</u>										Patient's Name: <u>Mrs. MacDonald</u>				
										Hospital Number: <u>00 7413</u>				
Put a tick in the column which best describes the pain since the last recording										Signature of nurse	Site	Comment and/or nursing action	Analgesic given	
Date	Time	No pain or sleeping	Slight pain	Moderate pain	Severe pain	Pain bad as it could be	Name	Dose	Route				Time	
13.10.82	11.00		✓					P. Smith	abdomen	analgesic given		Dinoprin 5mg.	I.M.	11.00
	12.10			✓				P. Smith	abdomen	Discussed with Dr. analgesic given		Dinoprin 5mg	I.M.	12.15
	13.30	✓						P. Smith	—					
	14.30	✓						P. Smith	—					
	15.30			✓				S/N McCallum	abdomen	Analgesic and Anti-emetic given		Dinoprin 15mg	I.M.	15.35
	16.30	✓						S/N McCallum	—	appears more settled				
	18.00	✓						S/N McCallum	—					
	20.00			✓				S/N Ford	abdomen	Washed and turned and pain following analgesic given		Dinoprin 15mg	I.M.	20.10
	22.00	✓						S/N Ford	—	Turned and settled down.				
	24.00	✓						S/N T. Burns	—					
14.10.82	01.45		✓					S/N T. Burns	abdomen	Analgesic given		Dinoprin 15mg.	I.M.	01.45

Figure 6.1 A pain assessment chart showing how one patient's pain was assessed and relieved effectively following surgery.

Sheet No. 1

PAIN ASSESSMENT CHART

Ward B.

Patient's Name: Mrs. Fraser

Hospital Number: 274306

Put a tick in the column which best describes the pain since the last recording

Date	Time	No pain or sleeping	Slight pain	Moderate pain	Severe pain	Pain bad as it could be	Signature of nurse	Site	Comment and/or nursing action	Analgesic given
										Name Dose Route Time
23.3.83	16.45				✓		P. Jones	abdomen	Requested Dr. to increase dose (requested)	Diamorphin 2.5mg 1/1 17.10
	17.40			✓			P. Jones	abdomen		
	19.10		✓				P. Jones	abdomen		
	20.20	✓					P. Jones			
	21.15			✓			P. Jones	abdomen	Requested Dr. to increase dose (requested)	Diamorphin 2.5mg 1/1 21.20
	22.00			✓			S. Grant	abdomen		
	23.20			✓			S. Grant	abdomen	Analgesia	Diamorphin 2.5mg 1/1 23.25
24.2.83	24.00	✓					S. Grant			
	02.00		✓				M. Farnham	abdomen		
	03.30	✓					M. Farnham			
	04.00			✓			M. Farnham	abdomen	Analgesia 15 min	Diamorphin 2.5 1/1 04.00
	04.30	✓					M. Farnham			
	06.00	✓					M. Farnham			

Figure 6.2 A pain assessment chart showing how moderate pain was relieved.

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nature and severity of pain over time, a pain description chart might be helpful. Patients may be asked to select from a list of adjectives such as 'mild', 'distressing', 'knifelike', 'throbbing' or 'cramping', those words that best describe the pain. It might also be possible to connect an episode of pain with a bodily function or a time of day and thereby help the patient to find ways of avoiding such pain-inducing situations.

Pain in children

Assessing pain in children may present further difficulties. The effectiveness of relevant play in preparing children for painful procedures is very important but words are not reliable in communicating with very young children when trying to assess the location and intensity of pain. Play presents information in a more understandable way and young children readily identify with and project feelings onto a special doll or Teddy. A nurse could therefore exploit such play to find out the location of pain using the doll or Teddy. An older child might be able to point to the site of pain on a body chart.

Use of an analogue scale

Since pain is a subjective experience, it may be useful to provide a patient with a scale on which the extremes of the experience are indicated (Figure 6.3).

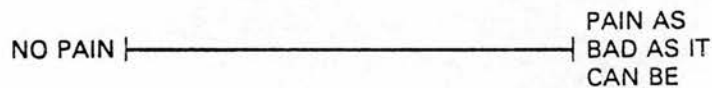


Figure 6.3 A visual analogue scale (after Scott and Huskisson 1976).

The patient is asked to place a mark on the scale to represent the level of pain at the time. The distance of the mark from the left-hand end of the scale is the pain score. The scale may be used several times during a day. A *pain profile* (Figure 6.4) may then be constructed to show if treatment has been effective.

Intervals between pain assessments

There are no set rules regarding the time interval between pain assessments for the same patient. It is, however, important that nurses record the administration and subsequent effect of an analgesic or other pain-relieving

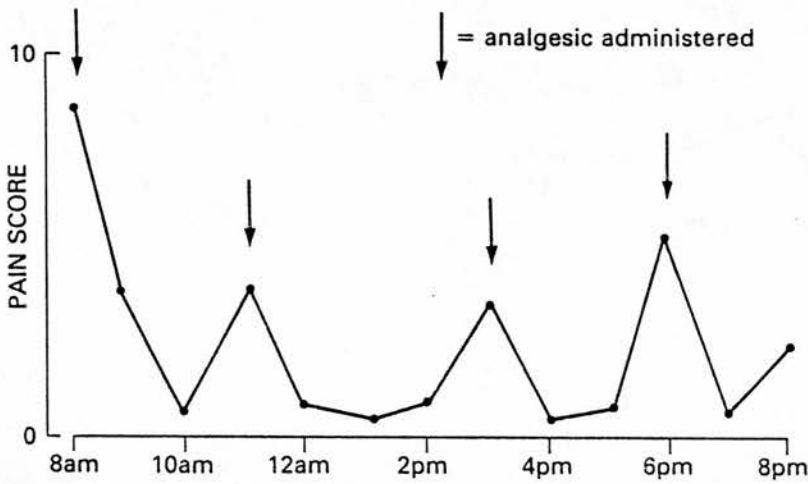


Figure 6.4 A pain profile showing the effect of analgesia on pain score (after Bond 1979). Arrows indicate the times at which an analgesic was administered.

strategy. Circumstances vary from one situation to another. It may be that following surgery pain assessment would be appropriate every 2 or 3 hours for the first 2–3 days, with the frequency of assessment being decreased subsequently. It is strongly recommended that the assessment chart is left at the patient's bedside. Since no patient would be left for more than 2 hours without some member of staff coming to the bedside, the process of pain assessment does not involve extra staff and requires little additional time.

Patients who experience chronic pain might find it helpful to have their pain assessed twice daily to check the efficacy of analgesia. For patients who are nursed at home, a home assessment record could be useful in disclosing patterns of pain and facilitating adjustments in therapy by the doctor.

Comfort measures

Repositioning, smoothing the bed and offering a warm drink can help a patient to relax. Although these measures may not relieve severe pain, they may sometimes relieve discomfort or mild pain, making more potent therapies unnecessary.

Patients' views

The experience of pain has been described by one author as including both

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the stimulus and response to that stimulus and she has analysed the 'experience' of patients in terms of 'suffering' (Copp 1974). In the course of her research she asked patients what nurses and doctors could do about pain. Patients suggested that there is nothing more important than talking to patients about pain and that nurses should be prompt and try to understand. Nurses should also stop telling people they don't have pain when they actually do and not try to feel *for* people when they can't know if patients have pain or not. Having confidence can help relieve the pain — if nurses had more confidence patients would too. Patients also felt that nurses should not assume that medication helps. In addition, Copp examined how nurses appear to patients in response to a request for pain relief. A patient may see the nurse as acting in a variety of roles, e.g. one of the following:

A controller — relieving or denying relief.

A communicator — passing on, validating and interpreting the bid for pain reduction.

A judge — deciding if pain is reasonable, timely and expected in terms of quality and quantity.

An avoider — refusing to report that medication does not bring relief.

An empathizer — letting the patient have his own experience; an authentic empathizer 'knows' and 'has experiences'; a pseudo-empathizer responds by describing her own experience to obtain feelings of credit, or to rob the patient of attention.

A barterer — giving relief in return for good patient behaviour.

An awareness by nurses of how their own behaviour might affect a patient's response to pain and its assessment have further implications. For example, if a nurse acts in a judgemental way, relief may be given to the patient in order to salve the nurse's conscience and not because the nurse herself really believes in what the patient is saying.

Prerequisites for nurses assessing pain

A background knowledge of the theoretical concepts involved in the complex phenomenon of pain is the first step. Displaying acceptance of individual patient's differences in pain tolerance and coping patterns are

also basic prerequisites for any nurse who wishes to be effective in relieving pain.

Summary

- 1 Pain assessment requires active effort on the part of the nurse.
- 2 Patients have individual coping strategies.
- 3 It is important that nurses accept patients' statements about pain.
- 4 There are some misconceptions which may hamper assessment of pain.
- 5 Ward routines place constraints on patients' requests for pain relief.
- 6 Pain assessment may help to reveal whether or not a particular drug is appropriate for a patient.
- 7 A pain assessment chart provides a written record and facilitates communication between patients, nurses and doctors.
- 8 In assessing pain with children, play may help in finding out the location of pain.
- 9 Although there are no set rules for timing of pain assessment, nurses should record the administration and effect of each pain-relieving strategy.
- 10 Patients have several suggestions about what nurses and doctors can do about pain.
- 11 Patients may see nurses as acting in one of a variety of roles in response to patients' pain.
- 12 A background knowledge about pain is a first step to assessing pain with patients.

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CHAPTER 7

PAIN THERAPIES

We have learned as a result of literally hundreds of experiments, that there is a limit to the effectiveness of any given therapy; but happily the effects of two or more therapies given in combination are cumulative.

(Melzack and Wall 1982)

So far this book has focused on the complex nature of pain. The traditional approach to treating pain has been to use invasive methods; that is to say, methods that physically invade or enter the body. Examples of these methods are analgesics, nerve blocks or surgical procedures. Increasingly, however, it is being recognized that, because so many factors influence the nature of pain, both the local tissue damage and innumerable external factors, it is best to treat pain (be it acute or chronic) using a combined physical and psychological approach.

The therapies outlined below could easily be used in such an integrated way. Some of them lie directly within the province of the nurse; for example, distraction techniques, guided imagery and relaxation are all noninvasive methods that nurses can initiate without a doctor's prescription. If a particular method does not work it can be discarded. The nurse should try to individualize each method to suit a particular patient and his pain. Sometimes patients can be taught to use these techniques on their own. There is some degree of overlap between the different methods.

Nurses do not, however, prescribe medications, although they do have considerable 'power' in relation to the administration of analgesics. In this respect, nurses must be familiar particularly with the rules regarding

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administration and the possible side effects. Nurses also do not carry out local anaesthetic blocks, but do have a role here in preparing and supporting patients before and during this treatment.

Distraction

Distraction is when someone focuses attention on a stimulus other than the pain. Sometimes distraction can or has to be used without planning or explanation. On other occasions, a nurse may plan beforehand and rehearse with a patient a particularly useful strategy prior to a painful procedure. It may be helpful to boost the confidence of the patient by taking an opportunity to practice while he is pain free. The quality of the nurse-patient relationship will influence the patient's willingness to try a particular technique.

Some patients use distraction themselves, without being taught, but do not tell the staff that they are consciously doing so. Reading, listening to music or watching television are examples of distraction. Imagination (mental imagery) is another form of distraction. Distraction may increase a patient's tolerance for pain and sometimes decrease the intensity of pain. What seems to happen is that pain ceases to be the focus of the patient's attention.

Unfortunately, many health professionals doubt that a patient is in pain if he is able to distract himself or be distracted (Wiener 1975). One comment overheard from a nurse was that a patient was 'sitting up in bed chatting happily to visitors', the assumption being that the patient could not possibly have been experiencing much pain. Perhaps the patient was being distracted from his pain. In one study it was found that patients developed their own coping behaviours at home but felt that doctors or nurses 'might not like it'. They felt that their coping behaviours might be 'against the rules' and might be laughed at as not being scientific (Copp 1974).

Following the use of distraction, increased awareness of pain and fatigue may be present. A patient should, therefore, be provided with an appropriate alternative method of relief following distraction. Another approach is to use distraction consciously while waiting for other methods to take effect. One patient said, 'I listen to music while waiting for the pain killers to take effect'.

Distraction alone is a potent pain reliever in certain situations. For example, when changing dressings, nurses can distract patients by getting them to talk about a favourite pastime, a book they may be reading or their

family. If patients do not feel like talking, another useful strategy is one described by McCaffery (1983). The nurse suggests to the patient that he stares at a spot (anything close at hand from a flower to a door knob) during which an area of skin is massaged in a slow, rhythmic, often circular, manner. The nurse can do this or the patient can do it for himself. The massage can be done on, or near, the painful area or on another part of the body depending on the nature of the injury or painful area. Another distraction strategy involves slow, rhythmic breathing — for use of this and pant-blow rhythmic breathing the reader is referred to McCaffery (1983, pp.151-155).

A method of distraction frequently used with children is to read stories to them and get them to describe the pictures. Adult patients can use pictures in a similar way, not only by looking at pictures of particular interest, but by using their senses in an imaginary way. For example, in looking at a picture of a country scene, the patient could imagine he hears the birds singing, feels the warmth of the sun on his skin and smells the fragrant flowers. This is using imagery in conjunction with distraction.

Imagery

The technique of imagery is different insofar as distraction is usually dependent on external stimuli, whereas imagery depends on the mind exclusively, usually through evoking visual sensations, although best results may be obtained by using all the senses. Imagery may be taught to a patient for distraction purposes. It may be preceded by a relaxation technique (described later). Imagery, as taught to a patient for self use, gives the patient control over whether he will use it and when. In using imagery the patient is alert and concentrating very hard.

One example of the power of imagery is to imagine yourself slicing a lemon and arranging it on a dish. When did your mouth begin to water? Imagination seems to involve responses from both mind and body.

Progressive relaxation exercises, followed by imagining idyllic scenes, may be useful in relieving both acute and chronic pain. One person who tried imagery was a colleague with a severe migraine. Until he was able to get to a chemist shop and purchase medication, he tried the following technique. He imagined himself near a beach — he did not like the sun so he chose the shade of a tree in which to rest. When asked what he heard, smelled and felt, he replied that he heard the sound of the waves and of children playing, smelled the sea air and felt the breeze on his face. This

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imagery took about 15 minutes, by which time he had reached the chemist shop. It is useful to find out from a patient to what extent he already uses imagery as a pain-relieving technique and it should be pointed out that imagery can be used along with other pain-relieving techniques.

If you guide the imagery you can use persuasive suggestions. For instance, you could say, 'When you are ready' or 'Perhaps you feel' (for example, the warmth of the sun). This approach involves the patient in deciding what is best for him. Sometimes people feel drowsy afterwards. If the patient wants to sleep he can say to himself, 'When I awake I will feel fresh'. If he does not want to sleep he could suggest to himself that when he has finished his imagining he will feel alert and awake.

Imagery can be used either for very brief periods or for a longer time, perhaps up to 20 minutes. One way to encourage a patient to use imagery is for the nurse to suggest to the patient that he pictures himself in a pleasant environment, e.g. in a park. The nurse can then ask the patient for a description of his surroundings, encouraging responses that use all his senses. If the patient has difficulty, the nurse could help by introducing appropriate images. For example, for one patient who was feeling very hot, it was suggested that she imagine herself resting under the shade of a big, leafy tree, feeling the cool breeze. Visual imagery can also be very helpful during uncomfortable procedures such as removal of sutures.

One specific image for pain relief involves picturing the pain flowing away from the body. McCaffery (1983, p. 262) describes instructions she gives to a patient with a tension headache. For patients with pain in another site, the word 'head' can be substituted with the appropriate site:

Get into a comfortable position. Close your eyes now. Take a slow, rather deep breath and feel yourself relax as you breathe out. Continue to breathe comfortably and slowly, feeling your body relax each time you breathe out. If you wish, the next time you breathe in you can imagine that your breath goes to your head, bringing nutrients, comfort and calm. As you breathe out, you can imagine that the air goes out through your head, taking with it the discomfort, leaving behind relaxed, healthy, comfortable tissues. Each time you breathe in you can picture the air flowing through to your head, bringing health and comfort. As you breathe out, the air once again flows out through your head, leaving calm, relaxation, health and comfort behind. I will pause now and you can continue to breathe slowly and imagine more and more comfort with each breath that flows through your head. (Pause for whatever amount of time seems reasonable, for example, 15 s or 1 min.). When you are ready, you may end this image by counting silently to yourself from one to three. At the count of three inhale, open your eyes, and say to yourself that you feel alert and

relaxed. I will wait now until you are ready to end this for yourself. Take your time. Enjoy the experience.

One variation is for the patient to imagine he is sitting on a river bank and with each breath out his pain flows down the river and out to sea.

Another image that may be useful is for the patient to imagine himself as healthy. The nurse can suggest to the patient the following short image as described by McCaffery (1983, p. 265):

If you wish, you may begin to picture yourself as being healthy. Perhaps you would like to begin with your toes and slowly work upwards. You may find this easier to do with your eyes closed. You may see each part of your body forming just as you want it to be. You can paint this picture of yourself in your mind's eye or you can simply allow the picture to form slowly. You can see that each body part is healthy. See yourself exactly as you want to be. See yourself healed. See each part of yourself functioning normally, inside and outside your body.

Using imagery with children can be particularly helpful. It could be the 'let's pretend' game. Allowing the child to imagine being his favourite hero in a story may be an acceptable way of helping him to cope with pain.

The use of colour, either in the environment or imagination, may be a useful aid. One patient used six coloured bangles as an aid to help her imagine the sun, sea and earth, and was able to create some very beautiful images for herself.

Relaxation exercises used in conjunction with imagery may enhance the effect of the imagery.

Relaxation techniques

Relaxation is freedom from mental and physical tension and stress. There are several techniques available to achieve a state of relaxation, all requiring the patient's participation. One or more techniques may often be combined with other therapies such as counselling to make a programme that may sometimes be referred to as relaxation therapy. What are described here are individual techniques. As mentioned earlier, any of these may also be used prior to using imagery to enhance its effect.

Many patients already practice some form of a relaxation technique. The nurse should enquire about this and if a patient finds a particular technique helpful, the nurse should encourage its use.

Relaxation may be achieved by various means, e.g. meditation, yoga or progressive relaxation exercises. Whatever technique is used, the aim

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should be to reduce the effect of stress. It is not clear how stress and pain are related but it may be that stress aggravates pain. It is, however, generally recognized that there is a relationship between pain and tension and anxiety. Relaxation techniques may also help to lower anxiety. This may, in certain circumstances, be helpful to overanxious patients. A further point is that a relaxation technique can act as a distraction so that the patient's mind is taken off the pain. Muscle relaxation training has been found to decrease 'state anxiety', that is anxiety which may be present in patients facing potentially stressful events (Johnson and Spielberger 1968). Relaxation may help a patient to sleep. Since pain is fatiguing it is a useful strategy in overcoming fatigue.

Some people have erroneous beliefs that relaxing is achieved by reading a book or watching television. In these situations, a person may still feel stressed. It is important to realize that people need to *learn* relaxation techniques. It is helpful if one can choose a quiet environment and assume a comfortable position to practice relaxation. Some people like to lie down, others prefer to sit in a straight-backed chair.

A technique recommended by McCaffery (1983, p. 221), which can be accomplished quickly, is described below:

- 1 Breathe in deeply and clench your fists.
- 2 Breathe out and go limp as a rag doll.
- 3 Start yawning.

Repeat these instructions as often as necessary. Step 1 should always be followed by Step 2, but Steps 2 and 3 can be repeated alone at intervals.

Slow rhythmic breathing can also be effective. It is often helpful for patients who experience chronic pain and who may like to use some method of relaxation regularly. The nurse can teach the patient to do abdominal breathing and then instruct as follows (McCaffery 1983, p. 223):

- 1 Close your eyes and take a slow deep breath.
- 2 As you breathe out, feel yourself relax. Feel the tension draining out of your body.
- 3 Breathe slowly and comfortably from your abdomen.
- 4 Think about your breathing. Feel the air enter your nose and lungs. Feel the air go out of your lungs and feel yourself relaxing as you breathe out.
- 5 To help you breathe slowly and rhythmically, as you inhale I will say 'in, one, two'; as you exhale, 'out, one, two'. (Say these phrases in coordination with the patient's breathing in and out. Do this two or three times to help the patient slow his breathing and keep it regular.)

- 6 Feel yourself relax each time you breathe out. Just let the air flow from your lungs and let the tension flow from your body.
- 7 As you breathe in you may say silently to yourself, 'In, one, two'. As you breathe out you may say to yourself, 'Relax'. (Say these phrases two or three times in coordination with the patient's breathing. A word other than 'relax' may have been chosen by the patient prior to using the technique.)
- 8 I am going to pause now to let you concentrate on your breathing. Relax as you breathe out, breathing slowly and rhythmically, counting silently for yourself if you wish. (Watch the patient and, if tension or difficulty arises, begin the counting for him and repeat the instructions in step 7.)
- 9 When you are ready to end this relaxation you may do so yourself. When you are ready, count silently from one to three. At the count of three, inhale deeply, silently say to yourself, 'I feel alert and relaxed', and open your eyes. I will wait now for you to end your relaxation for yourself when you are ready.

It may be helpful for some patients if the nurse puts the instructions on tape, possibly including some guided imagery. For home care patients this may be particularly useful since they could play the tape whenever they felt the need. A useful adjunct is an earpiece so as not to disturb other patients or, if at home, members of a family.

Some problems may occasionally arise. For example, a person may become very aware of body sensations or become withdrawn. Alternatively, patients may complain that techniques are 'boring'. Perhaps modifying the technique would help. If not, the nurse should discuss with the patient the possibility of discontinuing its use.

Analgesics

The administration of analgesic drugs is a common method of pain relief. Because doctors prescribe the drugs, it is sometimes assumed that understanding them is solely a medical responsibility. However, it is particularly important that nurses, too, understand how analgesics work since it is to nurses that patients will often turn for pain relief. Control of pain often depends on nursing staff, for nurses hold the keys of the cupboard where analgesics are kept. It is nurses who can exercise their discretion so that patients have the maximum control of pain. Too often the power that nurses have in this respect is used negatively, without individual assessment of pain and without any knowledge of drug potency.

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In discussing potency, a distinction is drawn between narcotic analgesics and non-narcotic analgesics. Narcotic analgesics work by acting on the central nervous system, whereas non-narcotic analgesics act on the nerves at the site of pain. Narcotic analgesics such as morphine are usually the only effective drugs in combatting severe pain, whereas non-narcotic analgesics such as aspirin are helpful for relief of mild to moderate pain. The ideal analgesic drug should be easily administered, effective, safe and cheap. The most important criterion is safety, but as with all drugs, the use of both narcotics and non-narcotics carries risks. Some commonly used narcotic and non-narcotic analgesic drugs are described below, but this is by no means a comprehensive list.

Narcotic analgesia

Narcotic analgesics affect perception of pain by acting on the central nervous system. They are used to relieve severe pain and also may produce a sense of well-being. This is linked with the tendency of these drugs sometimes to produce mental and physical dependence. Narcotics include both natural and synthetic drugs and are also known as opiates or morphine and its congeners. Narcotic analgesics are subject to the provisions of the Misuse of Drugs Act, 1971 and have to be prescribed by a medical or dental practitioner. They are therefore called controlled drugs. Buprenorphine (Temgesic) and pentazocine (Fortral) are exceptions in that they have narcotic properties but are not controlled drugs. There are two types of regulation regarding administration of drugs: first, Statutory Regulations relating to Acts of Parliament and, second, local hospital regulations. Individual Health Boards also draw up guidelines for storage and administration of medicines. Doses referred to below are adult doses given in the British National Formulary (1983).

Morphine The most commonly used narcotic analgesic is morphine, a derivative of opium. The usual dose for an adult is 10–20 mg administered intramuscularly or subcutaneously. The duration of action of morphine is usually considered to be about 4 hours, but this should not be taken for granted because of individual variation. Pain relief following administration should be assessed according to the guidelines in Chapter 6. The major side effect of morphine is dose-related respiratory depression. Care is needed in situations where this could be dangerous, e.g. in patients with pulmonary disease. Overdose of morphine can suppress respiration completely and

cause death. The depressant effect of morphine on the respiratory system can be counteracted by administering a specific morphine antagonist. The drug of choice for reversing the effect of morphine is naloxone.

Other side effects of morphine may be nausea and/or vomiting with the initial doses. Usually, therefore, an anti-emetic drug is prescribed with morphine. Morphine can also be administered orally and is suitable for relief of pain in terminal care. A simple elixir of morphine and chloroform water may be prescribed together with an anti-emetic such as prochlorperazine. A dose of 20–30 mg of morphine in an oral solution is generally considered to be equivalent to 10 mg of morphine by injection. Morphine can also be administered by rectum using suppositories. These come in 15 mg and 30 mg strengths. A sustained release form of morphine is now available in tablet form (M.S.T. Continus, 10 mg, 30 mg, 60 mg and 100 mg strengths). This is a long-acting preparation which may be helpful in domiciliary care for the relief of prolonged and severe pain. The dose is dependent on the severity of the pain. M.S.T. Continus may also be used for the relief of postoperative pain.

Morphine induces constriction of the pupils of the eyes. It also decreases peristaltic activity of the gastrointestinal tract, causing constipation. Further possible side effects are lowering of the blood pressure, dizziness and itching of the skin. One feature of morphine therapy is the development of patient tolerance; that is, the need to administer increasingly large doses to produce the same analgesic effect. If clinical tolerance develops, it is important to realize that this cannot be equated with addiction. There is also no reason to believe that it will lead to addiction (Jaffe 1975). Drug abuse is a voluntary behaviour. Drug tolerance and physical dependence are involuntary behaviours based on physiological changes that take place within the body.

Diamorphine (Heroin) Diamorphine is a derivative of morphine. Following administration, the effect of diamorphine has a more rapid onset and shorter duration than that of morphine. The usual dose is 5–10 mg, given intramuscularly or subcutaneously. Diamorphine can also be given in oral solution, 13–20 mg given orally being equivalent to 4–5 mg by injection. Diamorphine causes greater respiratory depression than morphine and is more likely to induce dependence.

Papaveretum (Omnopon) Papaveretum is given to relieve moderate to severe pain. It does not appear to have any advantage over morphine. It

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consists of 50% morphine and 50% other opium alkaloids. A dose of 13.5 mg of parvèretum is equal to 10 mg of morphine sulphate. It can be given by injection, subcutaneously, intramuscularly or intravenously (10–20 mg) and is also available in 10 mg tablets.

Pethidine This is a synthetic drug unrelated to morphine. It is a powerful analgesic that also reduces muscle spasm. It is very useful for the treatment of renal and biliary colic and labour pain. The usual dose is 50–100 mg given intramuscularly. Following administration, the onset of its effect is rapid but duration of action tends to be shorter than morphine, usually about 2–3 hours. Again, nurses should regularly assess the efficacy of the drug *with* individual patients to avoid unnecessary pain. Medical staff should be informed if the prescription provided does not allow for administration within the time that the patient experiences renewed pain. There may be less respiratory depression than with morphine, but pethidine should not be given to patients who are taking psychotropic drugs of the monoamine oxidase inhibitor group as excitation, coma, changes in blood pressure or death could occur. As with morphine, tolerance and dependence can develop.

Dihydrocodeine tartrate (DF118) Dihydrocodeine tartrate (DF118) is administered orally (30–60 mg) or intramuscularly (50 mg). If given intramuscularly it is regarded as a controlled drug, if given orally it is not. It is used for the relief of moderate to severe pain. Side effects are dizziness, nausea and constipation.

Codeine phosphate Codeine phosphate is administered orally (10–60 mg) or intramuscularly (up to 30 mg). Tolerance and dependence are common. Side effects are dizziness, nausea and constipation.

Phenazocine (Narphen) This analgesic is effective for severe pain, particularly biliary colic. Nausea and vomiting may occur, and, if so, the drug can be administered sublingually. The oral dose is 5–20 mg.

Dipipanone (Diconal) This drug contains dipipanone hydrochloride (10 mg) and cyclizine hydrochloride (30 mg) in one tablet. It is used for moderate to severe pain, particularly exacerbations in terminal illness. It is short acting and less sedating than morphine.

Methadone (Physeptone) Methadone is administered for severe pain. It is less sedating than morphine and acts for a longer time. It is sometimes used for the relief of terminal pain. The injections may cause local pain and tissue damage. The usual dose is 5–10 mg which can be administered subcutaneously or intramuscularly. By mouth the dose is usually 20 mg. Methadone may have a greater respiratory depressant effect than morphine.

Buprenorphine (Temgesic) Buprenorphine is used to treat moderate to severe pain. The side effects are less marked than those of morphine, although it may be helpful to give an anti-emetic over the first few days of administration. The effects of buprenorphine may not be reversed by naloxone. It may therefore antagonize analgesia from large doses of morphine and should not be given to patients who have become tolerant to morphine since withdrawal symptoms could result. Buprenorphine is administered sublingually in 200 µg tablets, or by intramuscular injection (300 µg).

Pentazocine (Fortral) Pentazocine, another partial narcotic agonist/antagonist, is used to relieve moderate to severe pain. It is administered orally, 25–100 mg after food, or by subcutaneous, intramuscular or intravenous injection, 30–60 mg. Rectal suppositories (50 mg) are also available. Side effects include mild respiratory depression, nausea, vomiting, dizziness and hallucinations.

Dextropropoxyphene napsylate and paracetamol (Distalgescic) This is a frequently used compound analgesic preparation. Its chief disadvantage is that overdose is complicated by respiratory depression, due to the dextropropoxyphene, and hepatotoxicity, due to the paracetamol.

Intravenous narcotics

In Great Britain nurses do not usually give intravenous injections. However, in some units, they may do so when there is an agreement with medical staff. Intravenous injections of narcotics are given slowly, over a 3–5 minute period, and the effect is almost immediate. The duration of action is, however, shorter than when a narcotic is given intramuscularly.

Patient controlled analgesia Patient controlled analgesic therapy (PACAT) is a method of intravenous narcotic administration suitable for

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adults who are rational and not in circulatory shock. It requires purpose-built equipment in which a previously programmed drug injector is connected to a venous cannula in the patient's arm or hand. A preset dose of narcotic (e.g. 2–3 mg of morphine) can then be delivered over a predetermined time, when the patient feels the need for it, the patient himself activating a press-button switch. In one study where this method was used postoperatively, patients experienced better pain relief than would have occurred with conventional intramuscular administration, and respiratory depression was not found to be a problem (Keeri-Szanto and Heaman 1972). In addition, it has been reported that patients are enthusiastic about the method and that side effects are minimal (Tamsen et al. 1982).

The syringe driver The syringe driver is now becoming a vital piece of equipment, particularly in caring for the terminally ill. When using it, the injection should be given through a *separate* intravenous cannula and *not* through a 'Y' connection into an existing intravenous infusion tube. The reason for this is that if the cannula becomes blocked, the narcotic could pass back up the infusion tube and subsequently enter the circulation too rapidly should the blockage in the cannula suddenly clear.

Counteracting respiratory depressant effects of narcotics

Naloxone is the drug most commonly used to counteract respiratory depression. Care should be taken not to precipitate withdrawal symptoms and not to counteract all the analgesia afforded by the narcotic. The suggested dose is 100–200 µg (1.5–3 µg/kg), adjusted according to the response of the patient, and then 100 µg every 2 minutes. The nurse must continue to observe a patient following administration of naloxone as the duration of action of this drug may be as short as 30 minutes, whereas the depressant effects of some narcotics may be considerably longer. Repeated treatments with naloxone may therefore be required.

Generally speaking, it is safe to give a patient enough narcotic to relieve pain but, unfortunately, many patients suffer unrelieved pain due to the inadequate use of narcotic analgesics. This may be for a variety of reasons, including underprescribing, failure to understand the importance of the individual nature of pain and, in the treatment of acute pain and the pain of terminal illness, a misplaced fear of addiction.

Non-narcotic analgesics

Non-narcotic analgesics such as aspirin and paracetamol are useful in the relief of musculoskeletal pain and most types of moderate to mild pain, and as an adjunct prescription for pain from bone secondaries in patients with malignant disease.

Aspirin Aspirin has an anti-inflammatory action and acts quickly. One difficulty with this analgesic is gastric irritation, but buffered preparations that are less irritant are available. It should not be given to patients with gastrointestinal problems, to patients with haemophilia or to those who are on anticoagulant therapy, since irritation can be sufficient to cause gastric haemorrhage. The dose is 300–900 mg every 4–6 hours when necessary. The maximum daily dose is 4 g.

Paracetamol This drug is similar in effect to aspirin but it has no anti-inflammatory action. It is less irritant to the gastrointestinal tract than aspirin. Overdose may cause liver damage which may not be obvious for up to 6 days. The dose is 0.5–1 g, either in the form of tablets or as an elixir.

Diflunisal (Dolobid) The contraindications for this drug are the same as for aspirin. The dose is 250–500 mg. Tablets should be swallowed whole. Absorption is reduced if the drug is given in conjunction with an antacid.

Mefenamic acid (Ponstan) This drug is used to treat mild to moderate pain. It should not be given to patients with peptic ulceration or inflammatory conditions of the bowel, to those with renal or hepatic impairment or to pregnant women. It may cause drowsiness, dizziness, gastric disturbances and diarrhoea. The dose is 500 mg taken orally after food.

Ibuprofen Ibuprofen is used in the treatment of pain and inflammation in rheumatic disease and other musculoskeletal disorders. The dose is 200–400 mg given orally in tablet form.

Carbamazepine (Tegretol) Although not strictly an analgesic, this drug is very effective in the treatment of trigeminal neuralgia.

Other drugs

New preparations are constantly appearing on the market and it is important that nurses appreciate the action of new drugs used and know about possible

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side effects. Detailed information can be found in pharmacology textbooks. The British National Formulary gives up-to-date information and nurses should be familiar with consulting this.

The management of acute pain using analgesic drugs

In treating acute pain a preventive approach is useful. Analgesics may be given before pain returns to prevent severe pain. Analgesics should, however, be viewed as part of an overall pain control strategy that includes a variety of measures, some of which may be taught to the patient. In individualizing management of acute pain, the nurse should observe a patient's response to a treatment and be prepared to discuss possible adjustments in dose if analgesics are being given. Intramuscular or intravenous routes may be used for severe pain, changing to oral, sublingual or rectal routes when the intensity of the pain subsides. The choice of route depends on the medication prescribed and on the nature of the injury or operation site. However, nurses should recognize the dangers of changing to less potent analgesics too soon. When an analgesic is not effective in terms of duration of pain, then shortening the interval between administrations may be of help rather than adding a drug to sedate. Sometimes it is helpful to give a narcotic along with a non-narcotic analgesic. When narcotics are in use, a narcotic antagonist such as naloxone should always be available should narcotic-induced respiratory depression develop. Nurses should always be aware of the possibility of undertreating pain and the importance of frequent assessment with the patient.

The fear of addiction is not well founded in the treatment of acute pain with narcotics. Undertreatment may in fact increase the likelihood of 'clock-watching' — when a patient waits expectantly for the next dose of analgesia. This kind of situation can lead to psychological problems. The answer to avoiding this lies in providing adequate pain control.

Accident and emergency treatment For relief of acute pain, particularly in a casualty department, Entonox (a 50/50 mixture of nitrous oxide and oxygen from one cylinder) may be used advantageously. It is rapidly effective and can be self-administered.

The management of chronic pain using analgesics and other drugs

The management of chronic pain presents an entirely different problem.

Patients suffering chronic pain fall into two groups. First, those suffering persistent pain with a normal expectation of life and, second, those who have a short expectation of life and are suffering from malignant disease. In the latter case, pain is continuous and becomes worse. Because of the short life expectancy, the possibility of addiction to narcotics is not important. These patients should be given analgesia in sufficient strength, quantity and frequency to control their pain (Lipton 1979, Twycross and Lack 1983).

In the case of nonmalignant pain, it is wise to use drugs that do not have abuse potential, combined with other relief measures aimed at increasing the quality of the patient's life. Sometimes, psychotropic drugs, especially antidepressants and phenothiazines, may relieve chronic pain. Amitriptyline, for example, may reduce the severity and frequency of migraine.

Transcutaneous electric nerve stimulation (TENS)

Transcutaneous electric nerve stimulation can be used for the relief of both acute and chronic pain. The mechanism by which TENS results in pain relief is not understood, although there have been a number of suggested explanations. Some people feel that TENS acts by activating nerve endings in the same way as the application of heat or cold. One possibility is that stimulating large-diameter nerve fibres closes the gate (see the section on gate control theory in Chapter 2) to the transmission of pain impulses (Nathan and Wall 1974). Other suggestions are that TENS acts by blocking primary afferent nerve fibres or by stimulating the production of endorphins, the body's own naturally occurring opiate-like substances.

There are many kinds of electrical device for TENS. These include small models, designed for patients to use themselves, which have a clip so they can be attached to a belt or put in a pocket.

A TENS system basically consists of a battery powered electronic pulse generator to which are connected two to four lead wires ending in electrodes that are placed on the skin. There are no standard sites on the skin to which the electrodes should be applied, the best sites for each patient being found by trial and error. The stimulation is felt by the patient as a tingling or buzzing sensation and this can be adjusted by the knobs on the side of the unit. The patient can adjust the sensation until it is pleasant and relieves the pain. Some electrodes need an application of conductive gel. A patient can wear the unit for as little time or as long as he likes. The electrodes can be left in place and the leads reattached when necessary. Sometimes the skin may become irritated and changing the tape used to keep the electrodes in

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place may help. If a rash occurs from the gel, then another type of gel should be substituted.

TENS may be used to treat all types of chronic pain but the results are variable. Some patients experience complete relief while others have none. TENS may also be used for relief of postoperative pain. Sterile, pregelled electrodes may be placed close to a wound and left in place. A stimulator can then be connected when required. Deep breathing, coughing and moving may be facilitated by the use of a TENS unit and may reduce the need for narcotic analgesia. If a TENS unit is to be used postoperatively it is useful if the patient can be made familiar with it prior to surgery.

Acupuncture analgesia

Acupuncture is a system of medicine developed by the ancient Chinese. During acupuncture treatment, fine needles pierce the skin at certain points on the body where particular effects can be obtained. The needles may be rotated or stimulated.

The Chinese explanation of how acupuncture analgesia works is based on the idea that life force flows around certain lines on the body known as meridians. Needling points on these lines is thought to correct an abnormal flow of life forces (Mann 1971). Another explanation that has been suggested is that acupuncture stimulates the production of endorphins (Mayer et al. 1976).

Some acupuncturists use traditional Chinese acupuncture points which may not necessarily be near the site of pain. Other acupuncturists use trigger points, which are small very sensitive regions in the muscle or connective tissue. They may be in the area of the pain or at some distance from it. Sometimes trigger points and acupuncture points correspond.

Pressure and massage on trigger points may relieve pain. Some therapists try using acupuncture points in this way, rather than needling the points. This is called acupressure. Illustrations of acupuncture points are shown in other publications (Mann 1971, McCaffery 1983).

Acupuncture analgesia may be helpful in relieving chronic pain and has been found to be particularly useful in the treatment of migraine (Lipton 1979). It is not effective in treating advanced cancer pain.

Nerve blocks

In certain circumstances, perhaps when other methods of pain relief are

contraindicated or have proved ineffective, and where pain is unilateral and restricted to a particular area, a local nerve block may be considered. In this procedure, the conduction of the nerve impulses which give rise to pain is prevented by injecting a local anaesthetic which produces a temporary effect, or a drug that destroys the nerve fibres (neurolytic agent), such as phenol, producing a longer term effect.

Nerve blocks are carried out by doctors, usually anaesthetists, but the nurse should play a supportive role before and during the procedure and should also be aware of possible complications, some of which are specific to different types of nerve block. For example, following epidural anaesthesia there may be urinary retention. After any phenol injection, the exact position of the patient, as specified by the doctor, is crucial and should be maintained for 1 hour. In addition, observation of the patient for signs of hypotension and haematoma is obligatory for 2 hours after the procedure. Local anaesthetic blocks may be effective for up to 12–18 hours, whereas a phenol block may be effective for 8–22 weeks. The use of nerve blocks for the relief of chronic pain is discussed by Latham (1983).

Summary

- 1 It is best to treat pain using combined physical and psychological treatments.
- 2 There are several therapies lying within the province of the nurse, e.g. distraction, guided imagery and relaxation.
- 3 There may be some degree of overlap between therapies.
- 4 The quality of the nurse–patient relationship will influence the patient's willingness to try a particular technique.
- 5 Sometimes health professionals doubt a patient's pain if the patient is able to distract himself.
- 6 Distraction may be a potent pain reliever.
- 7 Imagery may be used in conjunction with relaxation.
- 8 Visual imagery can be helpful during uncomfortable procedures.
- 9 Several techniques are available to achieve a state of relaxation, e.g. meditation, yoga or progressive relaxation exercises.
- 10 A quiet environment and comfortable position are recommended for practicing relaxation.

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- 11 Instructions for practicing relaxation may be recorded by the nurse on a tape for a patient.
- 12 Analgesic drugs are commonly used for relief of pain.
- 13 Narcotic analgesics are usually the only effective drugs in combatting severe pain.
- 14 The most commonly used narcotic analgesic is morphine.
- 15 Naloxone is the drug most commonly used to counteract ^{narcotic-induced} respiratory depression.
- 16 Patient-controlled analgesia is one method suitable for adults who are rational and not in circulatory shock.
- 17 The syringe driver is useful when caring for the terminally ill patient.
- 18 A preventive approach is useful in treating acute pain.
- 19 Patients with a short life expectancy should be given sufficient analgesia in terms of strength, quantity and frequency to control their pain.
- 20 Patients who suffer pain of nonmalignant origin may be treated with drugs that do not have abuse potential, combined with other pain therapies.
- 21 TENS may be used for relief of either acute or chronic pain but the results are variable.
- 22 Acupuncture analgesia may be used in the area of pain or at trigger or traditional acupuncture points.
- 23 In certain circumstances doctors may carry out nerve blocks to relieve patients' pain and nurses should be aware of their supportive role to patients and any possible complications that may occur with this type of treatment.

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CHAPTER 8

FEELINGS ABOUT PAIN

I am resentful against the hospital because they [the staff] should have warned you about how to cope and about what was going to happen and what you were going to go through.

(Patient after discharge from hospital)

Feelings of patients

Negative feelings related to unrelieved acute pain may impede a patient's recovery and delay rehabilitation. In addition, patients may view the prospect of any future hospitalization with anxiety and trepidation. For example, one patient said that if she had to go into hospital again, 'I would be awfully anxious, extremely anxious and, I mean, I really couldn't go through taking that pain again. It was terrible. I just wouldn't go in again if I knew something similar was to happen to me'. Later, when asked if despite her extreme anxiety she felt that she would have a little more courage to ask for information for herself, she replied, 'Yes, I think I would. I don't think I would sort of freeze up when everybody comes round the bed and looks at you. I think I would be able to ask exactly what was happening and what they were doing rather than just leave it and not have them tell me a thing'. Patients suffering chronic pain are in a different position, but they may also be affected by initial inadequate treatment, although the situation may be more tolerable if at least those around these patients are interested in them as people. So often, patients suffering chronic pain are referred back and forth from

specialist to specialist. A number may be referred to a pain relief clinic where they will find an interested doctor and/or nurse and, depending on the local organization, perhaps a multidisciplinary team.

Most patients who have suffered pain appreciate an outlet for expression of feelings whether they are being cared for at home, in a hospital ward or as an outpatient. The needs of patients vary according to the characteristics of their pain. Patients who have experienced unrelieved acute pain may feel that ventilation of feelings on one or a few occasions may spur them along the road to recovery. Patients experiencing unrelieved chronic benign pain may require frequent sessions to help them to come to terms with living with pain and to guide them towards an increased quality of life. For patients who have the pain of malignant disease there is the deepest suffering — what Cecily Saunders (1967) has called 'total pain' — a combination of physical, emotional, social and spiritual suffering.

The feelings patients experience when pain is not relieved vary with personality, previous pain experiences, expectations of the health carers and available therapies. It is important for health carers to realize that patients often need help to express these feelings and that patients may experience great relief simply on being made to feel free to do this. However, nurses should not force the issue but facilitate natural expressions of feelings.

Aftermath of pain

When pain is relieved, or brought under control, patients sometimes still appreciate the opportunity to express feelings about the effects of pain when it was not controlled. When the cause of pain is removed, the patient needs to be told this. For example, following a painful procedure such as a sternomarrow puncture, patients might find it easier to relax once they know this. On the other hand, the nurse should not tell the patient that a procedure is over and that there is no possibility of further discomfort until she is sure that this is so, since a second attempt at the procedure may be required.

Some patients need to know that their behaviour while in pain was acceptable and normal. A feeling of having lost control may lessen a person's self esteem. One patient said, 'I felt I had to apologize to the nursing staff for my behaviour but I was in such agony'. (In this particular case the analgesia provided had been inadequate.) Sometimes

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it helps patients to know that other people react in a similar way. Efforts to raise self esteem following painful experiences may be very worthwhile in preventing lingering anxiety and emotional feelings.

When pain is only partially controlled, some patients may be relieved and express this, whereas others may experience feelings of fatigue from accumulated pain. Some prefer to forget about the pain and try to put it at the back of their minds. Others do not forget so easily and encouragement to express pent up feelings may help.

When patients who have suffered chronic pain recognize that improvement has occurred, they may have problems adjusting to former activities. In helping such a patient, it is useful to remember that social, physical and financial changes may have occurred during the time he suffered. Added to this are personality changes brought about by despair and depression. Prolonged pain may leave a person feeling isolated and angry with the world. Rehabilitation may require assistance and understanding from the nurse so that the patient can regain former confidence and increase his joy of living. Life may never be as it was formerly; efforts to help the patient to express his feelings about this may help him progress to new ways of fulfilment.

Feelings of nursing staff

Nursing provides the opportunity to develop natural nurturing skills but for many the job is a stressful one. Many nurses develop feelings of powerlessness and frustration when they are unable to relieve suffering and ^{may} blame themselves or others. Unfortunately, when a nurse does become stressed (for this reason or any of a number of other reasons that make the job a stressful one), there may be a tendency for colleagues to assume that she cannot cope. It has been pointed out (Latimer 1980) that it is difficult being involved so closely on a day-to-day basis with other people's suffering. One student nurse wrote about the experience of working on a ward where all the staff had been involved in the programme about pain management mentioned in the preface of this book. She said, 'It was rewarding to be involved in a team where there was open discussion about individual patients' pain relief'. She later contrasted this to a ward where she was subsequently working and felt frustrated at the lack of awareness among members of staff.

A student who had attended several lectures on the nursing management of pain subsequently went to work in a casualty department and was distressed by the following incident:

A man arrived with chest pain, a possible myocardial infarction. On his arrival the care area was very busy; his initial recordings were carried out but he had to wait about 1½ hours before any decision was made as to what ward he should go to. Meanwhile, his relatives were waiting round the corner in a waiting area, obviously very worried about his condition. The patient was ashen white, sweating and obviously in a considerable amount of distress.

Another student nurse was very unhappy about a certain event when on night duty. A third-year nurse was on night duty with her at the time. The student nurse commented:

A patient returned from theatre and was suffering great physical and psychological pain. He was given an injection of diamorphine but this obviously was not adequate or appropriate for this man's pain. The third-year nurse informed the night sister when she came around. Sister told us to wait half-an-hour and if the patient's condition had not improved to inform the doctor. Meanwhile the patient's pain was not relieved.

Birch (1979) has also noted that failure to relieve pain is one cause of stress in student nurses. In order not to face the discomfort that a patient's suffering evokes in a nurse, the sense of powerlessness may result in nurses avoiding the patient. This is an attempt to shut off the reality of the failure and guilt on the part of the nurse. Accumulation of these feelings of frustration and powerlessness may lead to depression and, in some cases, great unhappiness. Nurses may even leave nursing due to lack of job satisfaction.

For the patient, prolonged pain is demoralizing and frightening. If carers avoid him he may become withdrawn and preoccupied with his pain. It is important that the nurse spends time with the patient and acknowledges the reality of his pain. Indicating that she is willing to stay with him and face the pain with him will be of great support and comfort. This is one constructive way of handling the feelings aroused in a nurse when she cares for a patient whose pain she cannot alleviate.

In the care of the terminally ill patient, a nurse may fear being the one who administers the last dose of analgesic before death. This can be particularly distressing if it has been necessary to increase the dose of narcotic to control the pain, since the nurse may feel that she is in some way responsible for the patient's death. This distress is understandable and colleagues should be supportive of each other in such situations.

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Nurses' stress may also be relieved by more open discussion of feelings in the ward situation. Nurse teachers should encourage learners to approach trained staff in a constructive way about issues that are concerning them, and trained staff should be encouraged to acquire the skills necessary to deal sensitively with such situations. Another aspect of the problem is the task of raising awareness in all levels of staff regarding the importance of pain management in general. This is an area for discussion within continuing education and must be given priority.

One way of learning about feelings

Sometimes it may be difficult for nurses to understand the feelings of patients who experience pain and to understand their own feelings in relation to providing pain relief.

The following exercise in role play is one that we tried out in the research project that led to writing this book. The participants were nurses who worked in surgical wards, but it has been used in classroom situations as well. Nurses could initiate this role play themselves. Alternatively, a ward sister or clinical teacher might like to use the idea. Role play is a valuable aid to learning and one way in which learners may be encouraged to explore their attitudes to pain. However, its use should always be supervised, in the first instance at least, by experienced teachers. Care should also be taken for participants to adopt pseudo-names and always for them to be deroled at the conclusion. A minimum of six people in the group is recommended with no limitation on the maximum number, as those not actually role playing act as observers. The exercise is in two parts with two separate themes. The players are each briefed in private.

Part 1 A participant is asked to act out the role of a patient in severe pain. The other player is given the role of a disbelieving, busy nurse. The players are allowed to act the situation until it spontaneously concludes (average time — 5 minutes). Following conclusion of the role play, each player is asked to relate her feelings in the role. These are noted (on a blackboard if one is available). Finally, each player is deroled by each one saying who she is in real life and not the role she played. Observers are requested not to discuss their observations among themselves and Part 2 of the exercise is then commenced.

Part 2 Two participants are again required and each is briefed privately.

One person is asked to act the role of a patient in severe pain and the other of a nurse who believes the patient. The role play continues until it concludes spontaneously (average time — 2 minutes). Each role player is asked how she feels and the comments are recorded as before. Participants are then deroled.

Following the role play, observers are asked for their comments on the nature of these interactions and a comparison is made.

Try out the above exercise and then compare your findings with ours. (I have found it best to choose a particularly sympathetic nurse for the role of the disbeliever in Part 1. In this way the group can be supportive of her later, knowing that she would never behave like that in real life.)

Some points usually noted by observers:

	<i>Theme 1</i>	<i>Theme 2</i>
Length of time of interactions	Long	Short
Tone of voices used	High pitched and fast	Calm
Non-verbal clues	No touching	Touching
	No eye-to-eye contact	Eye-to-eye contact
	Nurse stands	Same level

Feelings of nurse		Feelings of patient	
<i>Theme 1</i>	<i>Theme 2</i>	<i>Theme 1</i>	<i>Theme 2</i>
Anger	Sympathy	Anger	Empathy
Insecurity	Responsibility	Frustration	Concern on his behalf
Powerlessness	Autonomy	Powerlessness	Involvement

This exercise may sound simple, but it has been valuable in its simplicity because it demonstrates very clearly to nurses the implications of patient–nurse interactions. It is thoughtprovoking to consider the effects that nurses themselves can create in a learning situation using role play. Several nurses have said of this exercise, ‘It makes you think’.

Concluding comments

This little book set out to help nurses think more about meeting the challenge of pain control. I hope it goes some way towards achieving its aim for, as Bond (1979) has stated:

Where nurses have been taught to understand patients’ pain and to deal with it

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by physical and psychological means, patients express a much greater degree of satisfaction with treatment than where the staff have not received any training of this kind.

Summary

- 1 Negative feelings related to unrelieved acute pain may impede a patient's recovery.
- 2 Most patients appreciate being allowed to express their feelings.
- 3 Patients may need encouragement to express feelings.
- 4 When improvement has occurred patients may need help to adjust to former activities.
- 5 Nurses sometimes develop feelings of powerlessness and frustration when they are unable to relieve suffering.
- 6 Nurses' stress may be relieved when open discussion is encouraged.
- 7 Role play may help nurses in understanding their own feelings and those of patients.
- 8 PATIENTS ARE MORE SATISFIED WHEN NURSES HAVE BEEN TAUGHT ABOUT UNDERSTANDING PAIN.

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GLOSSARY

Acute pain An episode of pain of sudden onset, short duration and foreseeable end

Adaptation The process by which a patient may gradually manage to endure pain and carry on despite it, perhaps without obvious outward signs of pain

Analogue scale (for determining pain scores) A scale on which the extremes of pain experience (no pain, pain as bad as it can be) are indicated. The patient places a mark on the scale to represent the level of pain at the time, and the distance of this mark in standard units from the 'no pain' end of the scale is taken as the pain score

Body chart Simple outlines of the front and back views of the body on which the site of a patient's pain can be recorded

Chronic pain Pain lasting for 6 months or more

Deep pain Pain originating in the organs of the body. It is usually not as well localized as superficial pain and has an aching quality

Drug dependence

(a) *Psychological dependence* 'The intense craving and compulsive perpetuation of abuse to repeat the desired effect of a psychotropic drug' (World Health Organization 1969).

(b) *Physical dependence* 'An adaptive state which manifests itself by intense physical disturbances when administration of the drug is suspended or when its action is affected by the administration of a specific antagonist' (World Health Organization 1969). With continued use of

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morphine or heroin, physical dependence usually takes place within weeks of the first dose

Drug tolerance The need, with long-term drug therapy, to administer increasingly large doses to produce the same effect

Pain assessment chart A written record, usually over a period of hours or days, of the intensity and site of a patient's pain and the actions taken to control the pain

Pain biography An individual's collective previous experience of pain

Pain description chart A list of adjectives that could be used to describe the intensity and quality of pain, used as an aid in pain assessment

Pain profile A record (usually graphic) of a patient's pain scores, usually over a period of hours or days, used to assess the response to pain relieving measures

Pain threshold The least stimulus intensity at which a person perceives pain

Pain tolerance The greatest stimulus intensity causing pain that a person is prepared to tolerate

Psychogenic pain Pain with no detectable physical cause in a patient with a history of expressing emotional problems in terms of pain

Referred pain Pain felt at a site other than that which has been stimulated

State anxiety Anxiety that may be present in a patient facing a potentially stressful event

Superficial pain Pain originating from the stimulation of the skin or mucous membranes. It may be described as bright, pricking or burning and is usually localized

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APPENDIX II

DOCUMENTATION IN RELATION TO
PATIENT PARTICIPANTS

- (a) Ward Data Schedule
- (b) Letter to General Practitioners
- (c) Letter to Patients
- (d) Home Interview Schedule

APPENDIX IIa

Ward Data Schedule

WARD DATA

SERIAL NUMBER:

DIAGNOSIS:

				COL.	CODE
	ID			(1-4)	
	Card No.			(5)	1
	Hospital			(6)	
	Ward			(7)	
1.	Age			(8-9)	
2.	Type of operation			(10)	
3.	Date of operation			(11-16)	
4.	Post-op day			(17)	
5. Profile	Yes	No		(18)	
6. Emotion Assess	Yes:	Not nervous	3		
		Slightly nervous	4		
		Nervous	5		
		Very nervous	6		
		Other	7		
	No			(19)	
7. Assessed by (grade)				(20)	
8. Comments re assess of pain in nursing records	Yes	No		(21)	
9. If Yes, specify				(22-24)	

COL.CODE

10. Premed.
Agents

Dose Date Time

11. Inter-op.
Agents

Dose

12. Operation Start
Operation Finish
Duration (minutes)

(25-27)

_ _ _

13. Expected duration of action of premed. and inter-op.
analgesics from end of operation (minutes)

(28-30)

_ _ _

14. Time of first post-op. analgesia

Rec. room
Ward

15. Estimate of time between end of op. and first
post-op. analgesia (minutes)

(31-33)

_ _ _

16. Guesstimate of time in pain before first post-op.
analgesia (minutes)

(34-36)

_ _ _

17. Analgesia post-op.

Drugs prescribed:
(incl. instructions to ward from anaesthetist)

Date	Drug	Dose	To be given	Method of administration	Remarks
------	------	------	----------------	-----------------------------	---------

PATIENT
CODE NO: _____ POST-OP DAY: _____ USED GRAPHIC RATING SCALE BEFORE: YES NO

COL. CODE

Score 1
Intensity
of Pain

Day 0 NO PAIN	_____	PAIN AS BAD AS IT COULD BE	(55-56)	__
	S L I G H T M O D E R A T E S E V E R E			
Day 1 NO PAIN	_____	PAIN AS BAD AS IT COULD BE	(57-58)	__
	S L I G H T M O D E R A T E S E V E R E			
Day 2 NO PAIN	_____	PAIN AS BAD AS IT COULD BE	(59-60)	__
	S L I G H T M O D E R A T E S E V E R E			
Day 3 NO PAIN	_____	PAIN AS BAD AS IT COULD BE	(61-62)	__
	S L I G H T M O D E R A T E S E V E R E			

Score 2
Duration
of Pain

Day 0 NO PAIN AT ANY TIME	_____	PAIN ALL THE TIME	(63-64)	__
	S H O R T M O D E R A T E L O N G			
Day 1 NO PAIN AT ANY TIME	_____	PAIN ALL THE TIME	(65-66)	__
	S H O R T M O D E R A T E L O N G			
Day 2 NO PAIN AT ANY TIME	_____	PAIN ALL THE TIME	(67-68)	__
	S H O R T M O D E R A T E L O N G			
Day 3 NO PAIN AT ANY TIME	_____	PAIN ALL THE TIME	(69-70)	__
	S H O R T M O D E R A T E L O N G			

Home interview: YES NO

Patient interview (71) __

Patient's home address:

Name of G.P.:

Address _____

Phone _____

Letter ☐ Letter
G.P. Patient ☐

Date and time of interview: _____

Comments:

APPENDIX IIb

Letter to General Practitioners

LISBETH HOCKEY, O.B.E., Ph.D.,
Hon. LL.D., F.R.C.N.
Director of Research Unit



Head of Department of Nursing Studies
Professor A.T. Altschul, F.R.C.N.

NURSING RESEARCH UNIT
Department of Nursing Studies
University of Edinburgh
12 Buccleuch Place
EDINBURGH EH8 9JT
031 667-1011 ext. 6268
Telex 727442 (UNIVED G)

CONFIDENTIAL

Dear Dr.

I am a Nursing Research Training Fellow attached to the Nursing Research Unit at the University of Edinburgh. At present I am involved in a research project concerned with patients' opinions on aspects of post-operative care in hospital. The project has the support of the Consultant in charge of the unit and the agreement of nursing administration.

I briefly visited your patient, in Ward at Hospital. She has kindly agreed to my interviewing her at home shortly after discharge from hospital. If there is any reason why this might be inadvisable or inappropriate, could you please let me know. You could leave a message at the Nursing Research Unit (031-667 1011 Ext. 6268) between 9 a.m. - 1 p.m. and 2 p.m. - 5 p.m. The patient's identity will be kept confidential and the findings of the study used only for the purpose of the research project.

Yours sincerely,

Beatrice Sofaer (Mrs.)
SHHD Research Training Fellow

APPENDIX IIc

Letter to Patients

LISBETH HOCKEY, O.B.E., Ph.D.,
Hon. LL.D., F.R.C.N.
Director of Research Unit



Head of Department of Nursing Studies
Professor A.T. Altschul, F.R.C.N.

NURSING RESEARCH UNIT
Department of Nursing Studies
University of Edinburgh
12 Buccleuch Place
EDINBURGH EH8 9JT
031 667-1011 ext. 6668
Telex 727442 (UNIVED G)

Dear

Thank you for agreeing to participate in my research project. I look forward to seeing you again on

Yours sincerely,

Beatrice Sofaer (Mrs.)
SHHD Research Training Fellow

APPENDIX II

Home Interview Schedule

PATIENT INTERVIEW

	<u>Col.</u>	<u>Code</u>
ID	(1-4)	P _____
Card No.	(5)	1 _____
Hospital	(6)	_____
Ward	(7)	_____

Hello Mrs. How are you? Thank you for allowing me to come to interview you. As I explained briefly when we met in hospital, I am interested in finding out your opinions and feelings about some of your experiences in hospital. As you probably gathered, I am particularly interested in hearing about the pain you had after your operation.

The interview will take about 30-40 minutes. Please do interrupt me at any time with comments if you wish to. I would also like to ask you some questions about yourself. All information will be treated in strict confidence and used only for the purpose of my research.

	Col.	Code
*1. Generally speaking what are the main problems you experienced in hospital:-		
Difficulty sleeping?	_____	_____
Privacy?	_____	_____
Changes in staff?	_____	_____
Family worries?	_____	_____
Boredom?	_____	_____
Diet?	_____	_____
Anxiety?	_____	_____
Not enough information?	_____	_____
Isolation?	_____	_____
Noise?	_____	_____
Other:-	_____	_____

(8-9)

2. Had you ever been in hospital before?

Y N (10)

* This question was subsequently allocated additional columns for coding purposes (see p. 279)

3. If YES to Question 2, can you tell me the reasons and how long ago?

Admission (1)

		<u>Col.</u>	<u>Code</u>
(a) Reason:	Surgical 1		
	Medical 2		
	Obstetric 3		
	Other 4	(11)	_____
(b) How long ago:	__ months	(12-13)	_____
	__ years	(14-15)	_____
(c) How painful:	Very 1		
	Mod. 2		
	Little 3		
	Zero 4		
	DK 5	(16)	_____

Admission (2)

(a) Reason:	Surgical 1		
	Medical 2		
	Obstetric 3		
	Other 4	(17)	_____
(b) How long ago:	__ months	(18-19)	_____
	__ years	(20-21)	_____
(c) How painful:	Very 1		
	Mod. 2		
	Little 3		
	Zero 4		
	DK 5	(22)	_____

Admission (3)

(a) Reason:	Surgical 1		
	Medical 2		
	Obstetric 3		
	Other 4	(23)	_____
(b) How long ago:	__ months	(24-25)	_____
	__ years	(26-27)	_____
(c) How painful:	Very 1		
	Mod. 2		
	Little 3		
	Zero 4		
	DK 5	(28)	_____

Admission (4)

(a) Reason:	Surgical 1		
	Medical 2		
	Obstetric 3		
	Other 4	(29)	_____
(b) How long ago:	__ months	(30-31)	_____
	__ years	(32-33)	_____
(c) How painful:	Very 1		
	Mod. 2		
	Little 3		
	Zero 4		
	DK 5	(34)	_____

			<u>Col.</u>	<u>Code</u>
Admission (5)	(a) Reason:	Surgical	1	
		Medical	2	
		Obstetric	3	
		Other	4	(35) _____
	(b) How long ago:	_____ months		(36-37) _____
		_____ years		(38-39) _____
	(c) How painful:	Very	1	
		Mod.	2	
		Little	3	
		Zero	4	
DK		5	(40) _____	
Admission (6)	(a) Reason:	Surgical	1	
		Medical	2	
		Obstetric	3	
		Other	4	(41) _____
	(b) How long ago:	_____ months		(42-43) _____
		_____ years		(44-45) _____
	(c) How painful:	Very	1	
		Mod.	2	
		Little	3	
		Zero	4	
DK		5	(46) _____	
Admission (7)	(a) Reason:	Surgical	1	
		Medical	2	
		Obstetric	3	
		Other	4	(47) _____
	(b) How long ago:	_____ months		(48-49) _____
		_____ years		(50-51) _____
	(c) How painful:	Very	1	
		Mod.	2	
		Little	3	
		Zero	4	
DK		5	(52) _____	
Admission (8)	(a) Reason:	Surgical	1	
		Medical	2	
		Obstetric	3	
		Other	4	(53) _____
	(b) How long ago:	_____ months		(54-55) _____
		_____ years		(56-57) _____
	(c) How painful:	Very	1	
		Mod.	2	
		Little	3	
		Zero	4	
DK		5	(58) _____	

			<u>Col.</u>	<u>Code</u>
Admission (9)	(a) Reason:	Surgical 1 Medical 2 Obstetric 3 Other 4	(59)	_____
	(b) How long ago:	_____ months _____ years	(60-61) _____ (62-63) _____	_____
	(c) How painful:	Very 1 Mod. 2 Little 3 Zero 4 DK 5	(64)	_____
Admission (10)	(a) Reason:	Surgical 1 Medical 2 Obstetric 3 Other 4	(65)	_____
	(b) How long ago:	_____ months _____ years	(66-67) _____ (68-69) _____	_____
	(c) How painful:	Very 1 Mod. 2 Little 3 Zero 4 DK 5	(70)	_____
4. Have you had any other experiences which have been painful? If yes, probe:-		Y N	(71-72)	_____
5. How would you rate this last experience (during the few days after the operation)?		Very painful 1 Moderately painful 2 A little pain 3 Pain free 4	(73)	_____

	<u>Col.</u>	<u>Code</u>
ID	(1-4)	P__
Card No.	(5)	2
Hospital	(6)	__
Ward	(7)	__

<u>Col.</u>	<u>Code</u>
-------------	-------------

6. Here is a line with "not at all anxious" at one end and "extremely anxious" at the other. Place a mark on the line where it was for you before the operation.

Not at all anxious	_____	Extremely anxious	(8-9)	__	__
--------------------------	-------	----------------------	-------	----	----

- * 7. What particular worries, if any, did you have before the operation?

(10)	__
------	----

- * 8. What particular worries, if any, did you have after the operation?

(11)	__
------	----

9. Were you anxious about having pain?
Probe (quote):-

Y	N	(12)	__
		(13)	__

10. Did you expect pain?

Y	N	(14)	__
---	---	------	----

* These questions were subsequently post-coded (see p. 279)

			<u>Col.</u>	<u>Code</u>
11. Was the pain:	Worse than you expected?	1		
	About what you expected?	2		
	Less than you expected?	3	(15)	_____
12. Do you feel that the pain relief you got was:	Better than you expected?	1		
	About what you expected?	2		
	Less than you expected?	3	(16)	_____
13. Did you discuss pain with anyone before the operation?		Y N	(17)	_____
14. If YES to Question 13, who did you discuss pain with?				
1. Relatives		Y N	(18)	_____
2. Friends		Y N	(19)	_____
3. Patients in the ward		Y N	(20)	_____
4. Ex-patient		Y N	(21)	_____
5. Nurses		Y N	(22)	_____
6. Hospital doctor		Y N	(23)	_____
7. G.P.		Y N	(24)	_____
15. Was there anyone who was especially helpful in letting you know what to expect after the operation?		Y N	(25)	_____
Probe:-			(26)	_____
16. Did you feel at ease asking questions of the nursing staff?		Y N	(27)	_____
Probe:-			(28)	_____

- | | | <u>Col.</u> | <u>Code</u> |
|---|-------|-------------|-------------|
| 17. Do you feel it is a good idea for nurses to discuss relief of pain with patients before an operation? | Y N | (29) | _____ |
| Probe:- | | (30) | _____ |
| 18. Did any of the nursing staff discuss pain with you before your operation? | Y N | (31) | _____ |
| Probe:- (If YES, did you like this?) | | | |
| (If NO, would you have liked someone to?) | | (32) | _____ |
| 19. Did you feel you were listened to as a person when you were in hospital? | Y N S | (33) | _____ |
| Probe:- | | (34) | _____ |
| 20. Did you feel that the nursing staff were sympathetic to you when you felt you needed it? | | | |
| All the nursing staff | 1 | | |
| Most of the nursing staff | 2 | | |
| Few of the nursing staff | 3 | | |
| None of the nursing staff | 4 | (35) | _____ |
| Probe:- | | (36) | _____ |

			<u>Col.</u>	<u>Code</u>
21.	Everyone has their own way of expressing their pain. How do you normally express yours? Do you:-			
1.	Screw up your face?	Y N	(37)	_____
2.	Cry/wince/moan?	Y N	(38)	_____
3.	Pray?	Y N	(39)	_____
4.	Curl up?	Y N	(40)	_____
5.	Bite your lip?	Y N	(41)	_____
6.	Talk about it?	Y N	(42)	_____
7.	Hold the 'sore' part?	Y N	(43)	_____
8.	Other?	Y N	(44)	_____
22.	How do you normally feel?			
1.	Disgruntled?	Y N	(45)	_____
2.	Depressed?	Y N	(46)	_____
3.	Anxious?	Y N	(47)	_____
4.	Other?	Y N	(48)	_____
23.	How did you express it in hospital?			
1.	Screw up your face?	Y N	(49)	_____
2.	Cry/wince/moan?	Y N	(50)	_____
3.	Pray?	Y N	(51)	_____
4.	Curl up?	Y N	(52)	_____
5.	Bite your lip?	Y N	(53)	_____
6.	Talk about it?	Y N	(54)	_____
7.	Hold the 'sore' part?	Y N	(55)	_____
8.	Other?	Y N	(56)	_____
24.	How did you feel?			
1.	Disgruntled?	Y N	(57)	_____
2.	Depressed?	Y N	(58)	_____
3.	Anxious?	Y N	(59)	_____
4.	Other?	Y N	(60)	_____
5.	Didn't feel able to?	Y N	(61)	_____

- | | | | <u>Col.</u> | <u>Code</u> |
|--|------------------------------------|---|-------------|-------------|
| 25. Did you feel that your pain was noticed by the nurses? | Always | 1 | | |
| | Most of the time | 2 | | |
| | Some of the time | 3 | | |
| | Seldom | 4 | | |
| | Never | 5 | (62) | _____ |
| Comments:- | | | (63) | _____ |
| 26. Generally speaking, was your pain relieved:- | Completely? | 1 | | |
| | A lot? | 2 | | |
| | A moderate amount? | 3 | | |
| | A little? | 4 | | |
| | Not at all? | 5 | (64) | _____ |
| 27. Do you feel that nurses generally: | Care a lot about pain relief? | 1 | | |
| | Care adequately about pain relief? | 2 | | |
| | Could care more about pain relief? | 3 | (65) | _____ |
| 28. Do you remember anything that was particularly helpful in relieving your pain in the first few days after the operation? | | | Y N (66) | _____ |
| Probe:- | | | (67) | _____ |
| 29. How easy or difficult was it for you to ask for pain killers? | Very difficult | 1 | | |
| | Difficult | 2 | | |
| | Easy | 3 | | |
| | Very easy | 4 | | |
| | Did not ask | 5 | (68) | _____ |
| Probe why:- | | | (69) | _____ |

				<u>Col.</u>	<u>Code</u>
30.	Did you wait until the drug trolley came around?	Y	N	NA	(70)
31.	Were you ever in pain in between drug trolley rounds?	Y	N		(71)
32.	If YES to Question 31, did you ask for pain killers in between drug rounds?	Y	N		(72)
33.	If NO to Question 32, why were you reluctant to ask?				(73)

34.	If YES to Question 32, who did you generally ask?				
1.	Sister	Y	N		(74)
2.	S/N	Y	N		(75)
3.	Student Nurse	Y	N		(76)
4.	E/N	Y	N		(77)
5.	Pupil Nurse	Y	N		(78)
6.	Nursing Auxiliary	Y	N		(79)
7.	Anyone	Y	N		(80)

	<u>Col.</u>	<u>Code</u>
ID	(1-4)	P
Card No.	(5)	3
Hospital	(6)	
Ward	(7)	

				<u>Col.</u>	<u>Code</u>
35.	I see you had injections (shots) over the first day of your operation. Can you remember if:-				
	The first shot was	Offered to you by nursing staff?	1		
		Given at your request?	2		
		Routine?	3		
		Can't remember	4	(8)	

			<u>Col.</u>	<u>Code</u>
The second shot was	Offered to you by nursing staff?	1		
	Given at your request?	2		
	Routine?	3		
	Can't remember	4	(9)	_____
36. Did they relieve the pain:	Completely?	1		
	A lot?	2		
	A moderate amount?	3		
	A little?	4		
	Not at all?	5	(10)	_____
37. Generally, when you had pain pills did the pain return before you received the next dose of pain killers?			Y N DK (11)	_____
Probe:-			(12)	_____
38. What do you consider the ideal goal for pain relief after an operation?	Be completely pain free	1		
	Have as much pain relief as possible	2		
	Enough pain relief so that the person can move about in bed	3		
	Relief of pain to where the person can just tolerate it	4	(13)	_____
39. If you have pain at home, generally speaking what do you do about it (any or some of the following)?				
1. Take some medicines	Y N	(14)		_____
2. Tell someone	Y N	(15)		_____
3. Bear it	Y N	(16)		_____
4. Hot bath	Y N	(17)		_____
5. Distraction	Y N	(18)		_____
6. Cry	Y N	(19)		_____
7. Go to bed	Y N	(20)		_____
8. Other	Y N	(21)		_____
Comments:-		(22)		_____

- | | | | <u>Col.</u> | <u>Code</u> |
|---|--|-------------------|-------------|-------------|
| 40. In hospital were you happy: | To be totally dependent on the nurses' judgment in terms of relieving your pain? | 1 | | |
| | OR | | | |
| | Would you have liked to administer your own pain pills? | 2 | (23) | _____ |
| 41. Did pain ever keep you awake at night? | Y N | | (24) | _____ |
| Probe:- | | | (25) | _____ |
| | | | | |
| 42. Here is a line with "not at all anxious" at one end and "extremely anxious" at the other. Bearing in mind your recent experience, if you had to go into hospital for another operation, place a mark on the line which indicates what you now think you would feel. | | | | |
| Not at all | _____ | Extremely anxious | (26-27) | _____ |
| anxious | | | | |
| 43. Would you have any advice for a new patient about to have the same operation as you? | Y N | | (28) | _____ |
| If YES, advice:- | | | (29-30) | _____ |
| | | | | |
| 44. Do you have any other comments you would like to make about the experience in hospital? | | | (31) | _____ |
| Quote:- | | | | |

		<u>Col.</u>	<u>Code</u>
45. Can you remember when you got up for the first time?	Day of operation	1	
	Day after operation	2	
	2nd day after operation	3	
	3rd day after operation	4	(32) _____

Thank you very much for all your help. Just before I go now I would be most grateful if you would give me some details about yourself.

		<u>Col.</u>	<u>Code</u>
	ID	(1-4)	P _____
	Card No.	(5)	4 _____
	Hospital	(6)	_____
	Ward	(7)	_____

		<u>Col.</u>	<u>Code</u>
46. Marital status?	Single	1	
	Married	2	
	Widowed	3	
	Separated	4	
	Divorced	5	(8) _____

47. Religion?	Protestant	1	
	R/C	2	
	Muslim	3	
	Hindu	4	
	Jewish	5	
	Buddhist	6	
	Agnostic	7	
	Other	8	(9-10) _____

48. How long is it since your operation?	_____ days	(11-12)	_____
--	------------	---------	-------

49. What is your occupation?	(13)	_____
------------------------------	------	-------

50. Occupation of spouse (if married)?	(14)	_____
--	------	-------

		<u>Col.</u>	<u>Code</u>
51. Housing?	Owner-occupier	1	
	Private rented	2	
	Public rented	3	
	Other	4	(15) _____
52. Number of children?			(16) _____
53. Age?			(17-18) _____
54. Educational qualifications:-			
1. 0-6 grades/Primary School		(19)	_____
2. Some Secondary School		(20)	_____
3. School Leaving Certificate		(21)	_____
4. High School Diploma/Highers/'A' Levels		(22)	_____
5. Two year College or Polytechnic		(23)	_____
6. College or University Degree		(24)	_____
7. Other		(25)	_____
55. Nationality?		(26)	_____
56. Number of years resident in Scotland?		(27-28)	_____

Thank you for your help.

Comments by researcher:-

Rapport:- Good Satisfactory Poor

Comments: 1 = comments made
2 = no comments made

Col. Code

"Personality"

(29)

Environment

(30-31)

Feelings:

Grateful

(32)

Resentful

(33)

Anxious

(34)

Depressed

(35)

Guilty

(36)

Accepting

(37)

Other

(38)

Support

(39)

	<u>Col.</u>	<u>Code</u>
Q.1 Generally speaking what are the main problems you experienced in hospital?		
Difficulty sleeping	(33)	___
Privacy	(34)	___
Changes in staff	(35)	___
Family worries	(36)	___
Boredom	(37)	___
Diet	(38)	___
Anxiety	(39)	___
Not enough information	(40)	___
Isolation	(41)	___
Noise	(42)	___
Other	(43)	___
Q.7 What particular worries, if any, did you have before the operation?		
Anaesthetic	(44)	___
Death	(45)	___
Pathological findings	(46)	___
Pain	(47)	___
Convalescence	(48)	___
Nausea	(49)	___
Family	(50)	___
Procedures	(51)	___
Others	(52)	___
None	(53)	___
Q.8 What particular worries, if any, did you have after the operation?		
Pathological findings	(54)	___
Pain	(55)	___
Convalescence	(56)	___
Nausea	(57)	___
Family	(58)	___
Procedures	(59)	___
Other	(60)	___
None	(61)	___

APPENDIX III

DOCUMENTATION IN RELATION TO
NURSE PARTICIPANTS

- (a) Heimler Work Orientation Schedule
and Interview Schedule
- (b) Self-Administered Knowledge Test
- (c) Letter to Nurse Participants
- (d) List of Recommended Reading in
Preparation for the Discussions

APPENDIX IIIa

Heimler Work Orientation Schedule
and Interview Schedule

NURSE INTERVIEWPART I

	<u>Col.</u>	<u>Code</u>
ID	(1-4)	N ____
Card No.	(5)	1
Hospital	(6)	____
Ward	(7)	____

My name is Bea Sofaer. I am a nurse doing some research. I am particularly interested in the satisfactions and frustrations which nurses experience in their work and how these may relate to our care of patients. I wonder if you would be willing to help me try to find some of the answers by allowing me to interview you about some of your feelings and opinions. All information will be treated in strict confidence and used only for the purpose of my research. Some of the questions relate to the more general satisfactions and frustrations in life. This is because it may be that frustrations and satisfactions at work and outside work have connections. There is no way that anyone could identify any person from the interview schedule. The interview would take about 30-40 minutes and is in three parts.

The first section consists of a set of questions designed to identify patterns of satisfactions and frustrations. Could you please answer each question as you feel here and now - today - indicating 'Yes', 'Perhaps' or 'No'. If you are not sure, or the answer is 'Sometimes', please answer 'Perhaps'.

WORK ORIENTATION SCHEDULE

Please answer each question according to the way you feel today.
 Circle Y to indicate YES. Circle P to indicate PERHAPS or sometimes.
 Circle N to indicate NO.

If you are not sure how you feel, answer PERHAPS.

WORK (EMPLOYED-STUDENT)

			<u>Col.</u>	<u>Code</u>
a. Do you like what you are doing?.....Y	P	N	(8)	_____
b. On the whole do you like the people you work with?.....Y	P	N	(9)	_____
c. Do you feel this is the right activity for you?.....Y	P	N	(10)	_____
d. Do you have any really satisfying hobbies?.....Y	P	N	(11)	_____
e. Have you enough opportunity for getting on in your work?.....Y	P	N	(12)	_____

FINANCE

a. Do you live better than you did two years ago?.....Y	P	N	(13)	_____
b. Are you able to save?.....Y	P	N	(14)	_____
c. Do you feel at ease about spending?.....Y	P	N	(15)	_____
d. Are you reasonably secure financially?.....Y	P	N	(16)	_____
e. Do you feel financially secure?.....Y	P	N	(17)	_____

SOCIAL LIFE

a. Do you feel happy about your social life?.....Y	P	N	(18)	_____
b. Have you a close friend in whom you can confide?.....Y	P	N	(19)	_____
c. Outside your family, do you feel there are people who really care about you?.....Y	P	N	(20)	_____
d. Would you want your friends to turn to you with their problems?.....Y	P	N	(21)	_____
e. On the whole, is your social life a good balance to your working life?.....Y	P	N	(22)	_____

HOME LIFE

a. Is your housing arrangement alright?.....Y	P	N	(23)	_____
b. Are you interested in family activities?.....Y	P	N	(24)	_____
c. Do you have someone with whom you can discuss money, work or other problems?.....Y	P	N	(25)	_____
d. Do you enjoy home life?.....Y	P	N	(26)	_____
e. Is there someone who understands you?.....Y	P	N	(27)	_____

PERSONAL CONTRACT

a. Are you really satisfied with your current work arrangements?.....Y	P	N	(28)	_____
b. Do you feel that someone at work is concerned about your wellbeing?.....Y	P	N	(29)	_____
c. Does your work activity bring you some sense of fulfilment?.....Y	P	N	(30)	_____
d. On the whole, are you content with the aims and objectives of your work?.....Y	P	N	(31)	_____
e. Can you relax?.....Y	P	N	(32)	_____

Total Satisfactions: Yes _____ Perhaps _____

ACTIVITY

				Col.	Code
a. Do you feel overworked?.....Y	P	N	(33)	_____	_____
b. Do you feel too tired to work?.....Y	P	N	(34)	_____	_____
c. Do you feel that your mind is underactive?.....Y	P	N	(35)	_____	_____
d. Do you feel too tired to enjoy life?.....Y	P	N	(36)	_____	_____
e. Do you feel frustrated because you are prevented from doing things properly?.....Y	P	N	(37)	_____	_____

HEALTH

a. Do you have frequent headaches?.....Y	P	N	(38)	_____	_____
b. Do you suffer from aches and pains?.....Y	P	N	(39)	_____	_____
c. Is sleep a problem for you?.....Y	P	N	(40)	_____	_____
d. Are you concerned about your health?.....Y	P	N	(41)	_____	_____
e. Is your imagination painful to you?.....Y	P	N	(42)	_____	_____

INFLUENCES

a. Do you at times feel disappointed by people with whom you work?.....Y	P	N	(43)	_____	_____
b. Do you often find that people like being hurtful to you?....Y	P	N	(44)	_____	_____
c. Do you feel that circumstances are often against you?.....Y	P	N	(45)	_____	_____
d. Do you feel that people are at times against you?.....Y	P	N	(46)	_____	_____
e. Would you like to have more power and influence?.....Y	P	N	(47)	_____	_____

MOODS

a. Are you at times very depressed?.....Y	P	N	(48)	_____	_____
b. Do you often feel vaguely insecure in your work?.....Y	P	N	(49)	_____	_____
c. Do you feel unduly guilty about your contribution as a worker?.....Y	P	N	(50)	_____	_____
d. Do you ever wish you could quit?.....Y	P	N	(51)	_____	_____
e. Do you find that people are often unappreciative of your efforts?.....Y	P	N	(52)	_____	_____

HABITS

a. Are you inclined to smoke or drink too much?.....Y	P	N	(53)	_____	_____
b. Do you take drugs or medicines to help you to feel better?...Y	P	N	(54)	_____	_____
c. Do you tend to get over-active or over excited?.....Y	P	N	(55)	_____	_____
d. Do you tend to eat too much or too little?.....Y	P	N	(56)	_____	_____
e. Are you driven to do things which cause trouble for yourself or others?.....Y	P	N	(57)	_____	_____

Total Frustrations: Yes _____ Perhaps _____

OUTLOOK

Here is a scale from 0 to 20. "0" indicates "not at all"; "20" indicates "completely".

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
"Not at All" "Completely"

For each question, pick a number which indicates how you feel today:

	Scale No:	
a. How far are you achieving your ambition in life?.....	_____	(58-59) _____
b. How far do you feel hopeful for the future?.....	_____	(60-61) _____
c. How far do you feel that your life has meaning?.....	_____	(62-63) _____
d. How far does life give you enough opportunity for self-expression?.....	_____	(64-65) _____
e. When you look back, how far do you feel that life was worth the struggle?.....	_____	(66-67) _____

Total OUTLOOK (add five numbers) _____

PART II

NEW CARD		
	<u>Col.</u>	<u>Code</u>
ID	(1-4)	N
Card No.	(5)	2
Hospital	(6)	
Ward	(7)	

I would like to ask you a few questions more specifically now in connection with your work as a nurse (please answer Y P N).

		<u>Col.</u>	<u>Code</u>
1. Do you feel you have enough time at work to talk to patients?	Y P N	(8)	
2. Do you feel you have enough time to talk with other ward staff about nursing care of patients?	Y P N	(9)	
3. Is there time for library and reading?	Y P N	(10)	
4. Do you have enough time for teaching patients?	Y P N NA	(11)	
5. (R.G.N.'s) - Do you have enough time for teaching learners? (Learners) - Do you have enough time for learning (as opposed to doing) in the ward setting?	Y P N	(12)	
6. Do you at times find yourself disagreeing with doctors' judgment?	Y P N NA	(13)	

Following on from looking at some of the satisfactions and frustrations that you feel, I am interested now in finding out your opinions on aspects of patient care. I am particularly interested in post-operative care. However, it would be impossible to look at all aspects in one research study, so I have decided to focus particularly on how we manage pain. I think it's important to mention that I'm not researching from a critical point of view - I want to find out how we as nurses "do it" and how we feel about it. First, I'd be most grateful if you would complete these "True-False" statements. [When completed continue]. I am aware that we feel we should be doing things a certain way but because of the nature of the job, and the nature of the system, practice differs from one situation to another. In this respect, I would be most grateful if you would now answer the following questions in terms of what you yourself feel and do in practice. Please interrupt me with your comments if you would like to at any stage. As before, all answers and comments will be entirely confidential. Please answer "yes", "no" or "don't know" unless I mention otherwise. Incidentally, a "don't know" answer is an answer in its own right and is perfectly acceptable from the research point of view.

- | | <u>Col.</u> | <u>Code</u> |
|--|-------------|-------------|
| 7. In your experience have you found that patients who have undergone the same operations are expected to take the same time to be up and about? | Y N DK (14) | _____ |
| Comment:- | | |
| 8. In your experience do patients undergoing the same operation experience about the same amount of pain? | Y N DK (15) | _____ |
| Comment:- | | |

					<u>Col.</u>	<u>Code</u>
9. Do you normally discuss post-operative pain relief with patients pre-operatively?	Y	N	S	DK	(16)	_____
If YES, NO or SOMETIMES, probe why:-					(17-18)	_____
If NO, do you feel it should be done at all?			Y	N	(19)	_____
If YES to above, by whom?					(20)	_____
10. If an analgesic appears to be ineffective and a patient is experiencing particularly severe pain, what would you be inclined to do? (Any or some of the following):-						
(a) Discuss the problem with the patient?	Y	N	DK		(21)	_____
(b) Discuss the problem with the patient's relatives?	Y	N	DK		(22)	_____
(c) Discuss the problem with other nurses?	Y	N	DK		(23)	_____
(d) Discuss the problem with the houseman?	Y	N	DK		(24)	_____
(e) Discuss the problem with the consultant?	Y	N	DK		(25)	_____
(f) Consult B.N.F. or Mims?	Y	N	DK		(26)	_____
(g) None of the above (probe):-					(27)	_____
11. In your experience do you feel that any of the following factors influence a patient's readiness to ask for pain killers?						
(a) Age	Y	N	DK			
If YES, more ready to ask if	Old	Young			(28)	_____
(b) Sex	Y	N	DK			
If YES, more ready to ask if	Male	Female			(29)	_____
(c) Social class	Y	N	DK			
If YES, more ready to ask if	Upper	Middle	Working		(30)	_____
(d) Seasons of the year	Y	N	DK			
If YES, more ready to ask if	Spring	Summer	Autumn	Winter	(31)	_____

					<u>Col.</u>	<u>Code</u>
(e)	Marital status	Y	N	DK		
	If YES, more ready to ask if					
	Single Married Widowed Divorced				(32)	_____
(f)	Pre-operative information - if patient has pre-operative information are they more ready to ask for pain killers?	Y	N	DK	(33)	_____
	If YES or NO, probe:-				(34)	_____
(g)	Prior knowledge - is patient more ready to ask if he/she is a nurse or doctor?	Y	N	DK	(35)	_____
(h)	Previous surgery - is patient more ready to ask if had previous surgery?	Y	N	DK	(36)	_____
	If YES or NO, probe:-				(37)	_____
(i)	Ethnic cultural background	Y	N	DK	(38)	_____
	If YES, probe:-				(39)	_____
12. In your experience do you feel that any of the following factors influence a patient's ability to tolerate pain?						
(a)	Age	Y	N	DK		
	If YES, less able to tolerate pain if					
	Old Young				(40)	_____
(b)	Sex	Y	N	DK		
	If YES, less able to tolerate pain if					
	Male Female				(41)	_____
(c)	Social class	Y	N	DK		
	If YES, least able to tolerate pain					
	Upper Middle Working				(42)	_____
(d)	Seasons of the year	Y	N	DK		
	If YES, least able to tolerate pain in					
	Spring Summer Autumn Winter				(43)	_____
(e)	Marital status	Y	N	DK		
	If YES, least able to tolerate pain if					
	Single Married Widowed Divorced				(44)	_____

				<u>Col.</u>	<u>Code</u>
(f)	Pre-operative information - less able to tolerate pain if had	Y	N	DK	(45)
	If YES or NO, probe:-				(46)
(g)	Prior knowledge - less able to tolerate pain if nurse or doctor	Y	N	DK	(47)
(h)	Previous surgery - less able to tolerate pain if had	Y	N	DK	(48)
(i)	Ethnic cultural background - any particular	Y	N	DK	(49)
	If YES, probe:-				(50)
13.	Are you yourself aware of any difference in your personal response to pain in patients of different cultural backgrounds?	Y	N	DK	(51)
	If YES, probe do you feel that this personal reaction may affect your management of the patient's pain?	Y	N	DK	NA (52)
14.	A 55 year old lady has undergone either abdominal hysterectomy, forefoot operation or cholecystectomy. She requests "pain killers" on her third post-operative day. She is sitting in a chair knitting and looks at ease. Which of the following actions would you be inclined to do first, second, etc.				
1.	The pain killers should be given at once?	()	Y	N	DK (53)
2.	The patient should be encouraged to wait a little longer?	()	Y	N	DK (54)
3.	The nurse should ask "are you sure you really need something now?"	()	Y	N	DK (55)
4.	The patient should be encouraged to "go without"?	()	Y	N	DK (56)

- | | | | | | <u>Col.</u> | <u>Code</u> |
|---|-------------------|-----|------|-------|-------------|-------------|
| 5. The severity of the pain should be questioned? | () | Y | N | DK | (57) | _____ |
| 6. Other methods of pain relief should be tried? | () | Y | N | DK | (58) | _____ |
| 7. None of the above? | () | Y | N | DK | (59) | _____ |
| If (7), probe:- | | | | | (60) | _____ |
| | | | | | | |
| 15. Which action do you feel would be the most often practiced on the ward in similar circumstances? | (1) | (2) | (3) | (4) | (5) | (6) |
| | (7) | DK | (61) | _____ | | |
| | | | | | | |
| 16. A patient states she is having pain two hours after having an I/M injection of Pethidine 100 mgs. on her first post-operative day. The nurse in charge of the ward encourages her to hold out a little longer. How do you feel about the nurse's action? Do you:- | | | | | | |
| | Strongly agree | 1 | | | | |
| | Agree | 2 | | | | |
| | Have no opinion | 3 | | | | |
| | Disagree | 4 | | | | |
| | Strongly disagree | 5 | (62) | _____ | | |
| Probe why:- | | | (63) | _____ | | |
| | | | | | | |
| 17. On the whole have you gained most of your knowledge regarding post-operative pain management (any or some of the following):- | | | | | | |
| 1. From experience in the wards? | () | Y | N | (64) | _____ | |
| 2. From theory during training and/or in-service? | () | Y | N | (65) | _____ | |
| 3. From reading journals or articles? | () | Y | N | (66) | _____ | |
| 4. Experiencing post-operative pain yourself? | () | Y | N | (67) | _____ | |
| (Rank) | | | | | | |

- | | | | | <u>Col.</u> | <u>Code</u> |
|---|-------------------------|------------|--------|-------------|-------------|
| 18. How would you rate yourself regarding your knowledge about pain? | High | 1 | | | |
| | Moderate | 2 | | | |
| | Low | 3 | (68) | | _____ |
| 19. How do you rate yourself in managing patients' post-operative pain? | Competent | 1 | | | |
| | Adequate | 2 | | | |
| | Would like to be better | 3 | | | |
| | Other (specify) | 4 | (69) | | _____ |
| 20. I'd like to know how you feel about the amount of theory on "pain" that you had in your training - for example, how much theory do you feel you've had on:- | | | | | |
| | 3 | 2 | 1 | 0 | |
| (a) The use of analgesics? | A lot | Mod.amount | Little | None | (70) _____ |
| (b) Theoretical basis of pain relief? | 3 | 2 | 1 | 0 | |
| | A lot | Mod.amount | Little | None | (71) _____ |
| (c) Psychological aspects of pain? | 3 | 2 | 1 | 0 | |
| | A lot | Mod.amount | Little | None | (72) _____ |
| (d) Cultural aspects of pain? | 3 | 2 | 1 | 0 | |
| | A lot | Mod.amount | Little | None | (73) _____ |
| (e) Pain assessment? | 3 | 2 | 1 | 0 | |
| | A lot | Mod.amount | Little | None | (74) _____ |
| (f) Methods of pain relief other than analgesics (e.g. distraction techniques, relaxation, cutaneous stimulation, acupuncture)? | 3 | 2 | 1 | 0 | |
| | A lot | Mod.amount | Little | None | (75) _____ |
| What do you regard as:- | | | | | |
| A lot? | | | | | |
| Mod. amount? | | | | | |
| Little? | | | | | |
| None? | | | | | |
| Any comments? | | | | (76) | _____ |

NEW CARD	
<u>Col.</u>	<u>Code</u>
ID	(1-4) N <u> </u>
Card No.	(5) 3
Hospital	(6) <u> </u>
Ward	(7) <u> </u>
<u>Col.</u>	<u>Code</u>

21. I have a list of drugs. Some may be familiar to you - some not, as they may not be used in this ward or hospital. As I go through the list tell me how you feel they rate as analgesics in general - strong, medium or weak or if you don't know please say "don't know". At the same time perhaps you could tell me how long you feel the effect of each drug lasts.

(a) Aspirin (oral)

Potency	(Strong	3		
	(Medium	2		
	(Weak	1		
	(DK	0	(8)	<u> </u>
Duration	(..hours			
	(DK	0	(9)	<u> </u>

(b) Morphine (I/M)

Potency	(Strong	3		
	(Medium	2		
	(Weak	1		
	(DK	0	(10)	<u> </u>
Duration	(..hours			
	(DK	0	(11)	<u> </u>

(c) Phenazocine (Narphen) (oral)

Potency	(Strong	3		
	(Medium	2		
	(Weak	1		
	(DK	0	(12)	<u> </u>
Duration	(..hours			
	(DK	0	(13)	<u> </u>

			<u>Col.</u>	<u>Code</u>
(d) Diflunisal (Dolobid) (oral)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(14)
Duration	(..hours			
	(DK	0	(15)	
(e) Pethidine (I/M)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(16)
Duration	(..hours			
	(DK	0	(17)	
(f) Paracetamol (oral)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(18)
Duration	(..hours			
	(DK	0	(19)	
(g) Diamorphine Hydrochloride (Heroin) (I/M)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(20)
Duration	(..hours			
	(DK	0	(21)	
(h) Mefenamic Acid (Ponstan) (oral)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(22)
Duration	(..hours			
	(DK	0	(23)	
(i) Papaveretum (Omnopon) (I/M)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(24)
Duration	(..hours			
	(DK	0	(25)	
(j) Dihydrocodeine tartrate (DF118) (oral)	Potency	(Strong	3	
		(Medium	2	
		(Weak	1	
		(DK	0	(26)
Duration	(..hours			
	(DK	0	(27)	

			<u>Col.</u>	<u>Code</u>
(k) Codeine Phosphate (oral)	Potency	(Strong 3 (Medium 2 (Weak 1 (DK 0	(28)	_____
	Duration	(..hours (DK 0	(29)	_____
(l) Pentazocine (Fortral) (oral)	Potency	(Strong 3 (Medium 2 (Weak 1 (DK 0	(30)	_____
	Duration	(..hours (DK 0	(31)	_____

22. Are there any factors which you know of which might be taken into account when determining length of time that an analgesic will last?

(32-33) _____

23. Given a situation where a patient develops nausea and vomiting after the first few doses of morphine, do you feel that the drug should be discontinued?

Y N DK (34) _____

If YES or NO, probe:-

(35) _____

24. On your ward do patients generally:-

- (a) Receive regular doses of analgesia (say on a 4-6 hourly basis) for the first few days post-operatively?
or

- (b) Do they receive analgesia whenever necessary at the discretion of the nurse in charge of the ward who is working from a P.R.N. prescription?

(a) (b) DK (36) _____

				<u>Col.</u>	<u>Code</u>
25. Which method do you favour?	(a)	(b)	DK	(37)	_____
If (a) or (b), probe why:-				(38)	_____
26. Do you feel that patients sometimes exaggerate pain?	Y	N	DK	(39)	_____
27. Do you feel that there is a place for the use of placebos (pretend analgesia) in the treatment of post-operative pain?	Y	N	DK	(40)	_____
If YES or NO, probe:-				(41)	_____
28. Do you feel there are any aspects of a patient's personality which could influence pain relief requirements?	Y	N	DK	(42)	_____
Comments:-				(43)	_____
If NO, probe:- It could be argued that anxiety may result in the patient experiencing more pain. Do you feel this is so?	Y	N	DK	(44)	_____
29. Do you admire someone with will-power?	Y	N	DK	(45)	_____
Probe:-				(46)	_____

- | | | | <u>Col.</u> | <u>Code</u> |
|--|-------|---|-------------|---------------|
| 30. Do you feel that trained nurses should be able to decide whether to give a patient a mild analgesic - say Panadol or Aspirin - without prescription? | Y | N | DK | (47) _____ |
| If YES or NO, probe:- | | | | (48) _____ |
| | | | | |
| 31. Generally speaking, with post-operative patients on the first post-operative day if an analgesic is ordered on a P.R.N. basis do you feel it should be given:- | | | | |
| (a) Every 4 hours? | _____ | | | |
| (b) Every 3 hours? | _____ | | | |
| (c) Would you check to see if it was needed? | _____ | | | |
| (d) Would you wait for the patient to request it? | _____ | | | |
| (e) DK | _____ | | | (49) _____ |
| | | | | |
| 32. What do you feel is the overall aim of administering analgesics during the first two post-operative days:- | | | | |
| (a) To relieve pain completely? | _____ | | | |
| (b) To relieve pain as much as possible? | _____ | | | |
| (c) To relieve pain just enough for the patient to function? | _____ | | | |
| (d) To relieve pain to a level where the patient can just tolerate it? | _____ | | | |
| (e) DK | _____ | | | (50) _____ |
| | | | | |
| 33. What factors do you feel should be considered when deciding whether or not to give an analgesic to a patient? | | | | (51-52) _____ |

		<u>Col.</u>	<u>Code</u>
34. Have you come across any other pain therapies?	Y N DK OF OTHERS	(53)	_____
Probe:-		(54)	_____

35. What do you feel are the main problems that nurses encounter in relation to relieving pain? (55-56) _____

36. What proportion of post-operative patients do you feel might become addicted to analgesia or medication?	Large	1	
	Moderate	2	
	Small	3	
	Very small	4	
	Nil	5	(57) _____

37. How are you yourself alerted to patients' pain post-operatively?	Verbal cues	1	
	Non-verbal cues	2	
	Physiological signs	3	
	Other	4	
	DK	5	(58) _____

PART III

	<u>NEW CARD</u>	
	<u>Col.</u>	<u>Code</u>
ID	(1-4)	N _____
Card No.	(5)	4
Hospital	(6)	_____
Ward	(7)	_____

All the information you share with me is, as I mentioned earlier, entirely confidential but in order for me to sort out the opinions and feelings of different participants I need your help in answering a few more questions about yourself.

		<u>Col.</u>	<u>Code</u>
1. Position?	Charge nurse	1	
	Staff nurse	2	
	1st year student	3	
	2nd year student	4	
	3rd year student	5	
	Enrolled nurse	6	
	Pupil nurse	7	
	Nursing auxiliary	8	(8) _____
	Post-basic student	9	
2. Professional qualifications?			
(a) SRN/RGN		(9)	_____
(b) SCM		(10)	_____
(c) SEN		(11)	_____
(d) HV		(12)	_____
(e) NDNC		(13)	_____
(f) RMN		(14)	_____
(g) RSCN		(15)	_____
(h) GNC		(16)	_____
(i) OND		(17)	_____
(j) None		(18)	_____
(k) Other		(19-24)	_____
3. Do you belong to a professional organisation or union?	None	1	
	Rcn	2	
	NUPE	3	
	COHSE	4	
	Other	5	(25) _____
(Learners and trained staff)			
4. How much statutory training have you had (all specialties)?	Total months:	_____	(26-27) _____
(Trained, SENs and Auxiliaries)			
5. How long have you been in practice?	Total months:	_____	(28-29) _____
	Total years:	_____	(30-31) _____
6. How much experience have you had in surgical wards (training and practice)?	Days:	_____	(32) _____
	Weeks:	_____	(33) _____
	Months:	_____	(34-35) _____
	Years:	_____	(36-37) _____

		<u>Col.</u>	<u>Code</u>
7. How long have you been in this ward?	Days: _____	(38)	_____
	Weeks: _____	(39)	_____
	Months: _____	(40-41)	_____
	Years: _____	(42-43)	_____
8. Marital status?	Single 1		
	Married 2		
	Widowed 3		
	Separated 4		
	Divorced 5	(44)	_____
9. Number of children?		(45)	_____
10. Have you ever been a patient in hospital yourself?	Y N	(46)	_____
If NO, go on to Question 16.			
11. Have you ever had an operation?	Y N	(47)	_____
If NO, go on to Questions 14 and 15.			
If YES, please answer Questions 12 and 13 and miss out Questions 14 and 15. If hospitalised for medical and surgical reasons, answer Questions 11 to 16 inclusive.			
12. Do you remember the event(s)?	Y N	(48)	_____
13. Do you remember having pain?	Y N	(49)	_____
If YES, can you describe it? Probe:-		(50)	_____
14. Non-surgical hospitalisation including childbirth (normal delivery). Do you remember the event(s)?	Y N	(51)	_____

			<u>Col.</u>	<u>Code</u>
15. Do you remember having pain?	Y	N	(52)	_____
If YES, can you describe it? Probe:-			(53)	_____
16. Can you remember ever having pain?	Y	N	(54)	_____
If YES, what do you remember about it? Probe:-			(55)	_____
17. Educational qualifications?				
(a) 0-6 grades/Primary School			(56)	_____
(b) Some Secondary School			(57)	_____
(c) School Leaving Certificate			(58)	_____
(d) High School Diploma/Highers/'A' Levels			(59)	_____
(e) Two year College or Polytechnic			(60)	_____
(f) Diploma in Nursing - 1st year student			(61)	_____
(g) Diploma in Nursing - 2nd year student			(62)	_____
(h) Diploma in Nursing - 3rd year student			(63)	_____
(i) Diploma in Nursing			(64)	_____
(j) B.Sc. Course - 1st year student			(65)	_____
(k) B.Sc. Course - 2nd year student			(66)	_____
(l) B.Sc. Course - 3rd year student			(67)	_____
(m) B.Sc. Ordinary Degree			(68)	_____
(n) B.Sc. Honours Degree			(69)	_____
(o) Other College or University Degree - 1st year student			(70)	_____
(p) Other College or University Degree - 2nd year student			(71)	_____
(q) Other College or University Degree - 3rd year student			(72)	_____
(r) College or University Degree			(73)	_____
(s) Other			(74)	_____

	<u>Col.</u>	<u>Code</u>
18. Nationality?	(75)	_____
19. Number of years resident in Scotland?	(76-77)	_____
20. Accommodation?		
	Privately owned	1
	Parental home	2
	Rented Private	3
	Rented Public	4
	Living in	5
	Other	6
	(78)	_____
21. Age?	(79-80)	_____

Thank you for your help.

Time taken:-

Rapport:- Good Satisfactory Poor

APPENDIX IIIb

Self-Administered Knowledge Test

Code No. N _____

PAIN MANAGEMENT STUDY

Thank you very much for participating in my research project. I wonder if you would be kind enough to answer the following statements by circling the appropriate "TRUE", "FALSE" or "DON'T KNOW".

- | | | | |
|---|---------------------------------------|--|----------------------------------|
| 1. If patients do not know what is going to happen to them and when, they will be anxious. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 2. Narcotic analgesics such as morphine are usually the only effective drugs to combat severe pain. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 3. Pain is whatever the patient says it is, existing whenever he says it does. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 4. A patient usually adapts to pain, both physiologically and behaviourally, even when pain remains at the same intensity. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 5. Overdosage of morphine may eventually stop respiration and cause death. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 6. Anxiety is most often associated with acute pain, while depression is most often associated with chronic pain. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 7. If we know the cause of pain, we can usually predict its duration and severity. | <input type="radio"/> TRUE | <input checked="" type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 8. Although tolerance for pain varies from one patient to another, a patient usually has the same degree of tolerance at all times. | <input type="radio"/> TRUE | <input checked="" type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 9. The process of pain assessment requires active effort on the part of the nurse. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 10. It is probable that many post-operative patients will become addicted to analgesics. | <input type="radio"/> TRUE | <input checked="" type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 11. Preparing a patient for surgery psychologically as well as physically is not likely to have any effect on his pain. | <input type="radio"/> TRUE | <input checked="" type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |
| 12. A side-effect of taking aspirin is nausea and/or vomiting. | <input checked="" type="radio"/> TRUE | <input type="radio"/> FALSE | <input type="radio"/> DON'T KNOW |

Thank you very much indeed for all your help.

Correct answers ringed

APPENDIX IIIc

Letter to Nurse Participants

LISBETH HOCKEY, O.B.E., Ph.D.,
Hon. LL.D., F.R.C.N.
Director of Research Unit



Head of Department of Nursing Studies
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Dear

Thank you very much for agreeing to participate in my research project.

You may know already that the study has the support of the Scottish Home and Health Department, the Chief Area Nursing Officer and, at local level, the District Nursing Officer and the Divisional Nursing Officer. All information collected is strictly confidential and will be used only for the purpose of my research.

As you may also know, part of the project involves group discussions with ward staff. In this respect, please would you read the enclosed articles before . We will be discussing the contents during that week and it will be interesting to hear everybody's opinions and feelings.

Once again, thank you very much indeed. I am most grateful for your help.

Yours sincerely,

Bea Sofaer,
SHHD Nursing Research Training Fellow.

APPENDIX IIIId

List of Recommended Reading in
Preparation for the Discussions

RECOMMENDED READING IN PREPARATION
FOR DISCUSSIONS

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APPENDIX IVPUBLICATIONS ARISING OUT OF
WORK FOR THIS THESIS

- (a) Sofaer, B. (1982) Sources, Supporters and Sustainers - Thoughts on the first year of nursing research training. Nursing Studies Research Unit, University of Edinburgh.
- (b) Sofaer, B. (1982) The Functioning of Nursing Teams in Surgical Wards in relation to Relieving Patients' Pain. British Association for Social Functioning.
- (c) Sofaer, B. (1983) The effect of focused nursing education on post-operative pain relief: A pilot study. Swedish Nurses' Association, Stockholm.
- (d) Sofaer, B. (1983) Pain Relief - The core of nursing practice. Nursing Times, Vol. 79, No. 47, pp. 38-42 and Vol. 79, No. 48, p. 35.
- (e) Sofaer, B. (1983) Pain Relief - The importance of communication. Nursing Times, Vol. 79, No. 48, pp. 32-35.

APPENDIX IVa

Sofaer, B. (1982) Sources, Supporters and Sustainers - Thoughts on the first year of nursing research training. Nursing Studies Research Unit, University of Edinburgh.

SOURCES, SUPPORTERS AND SUSTAINERS - THOUGHTS ON THE FIRST YEAR OF NURSING RESEARCH TRAINING

BEATRICE SOFAER

This paper is a subjective account of some experiences during my first year of research training attached to the Nursing Research Unit here in Edinburgh. Some researchers would argue that objective data must take precedence over personal impressions but, since the experience of research is a human one, I offer this paper in the belief that there is a need to examine the sources of research ideas and the support system required to facilitate the acquisition of scientific values, which are all part of that human experience. The ideas for my project originated in the clinical setting but it has only been because of financial, academic and psycho-social support that it has been possible to pursue these ideas. Hence the title of this paper.

In reminiscing over the past year, I am reminded of a quotation from Lewis Carroll's 'Alice in Wonderland': "I could tell you my adventures beginning from this morning", said Alice a little timidly - "but it's no use going back to yesterday because I was a different person then". Nevertheless, I will attempt to offer a few recollections. First, I will tell you how the ideas for the project came about, then I will briefly outline the project. Following on from this, I will discuss the experience of transition from working in a hospital to being a postgraduate student in an academic setting. Finally, I would like to tell you more generally about the educational experience of the past year using the two ends of the educational spectrum - the novice and the supervisor.

Sources of ideas for the study

The impetus for the project was generated by working as a clinical teacher. Dr. Hockey (1981) has pointed out that, as far as clinical nursing research is concerned, the ideas should ideally be generated by people working in clinical areas. As a clinical teacher I observed that: (1) patients often seemed to be suffering pain; (2) nurses often did not recognise when a patient had pain; (3) different nurses appeared to act different roles in relation to providing pain relief. I asked myself several questions. Why was it that patients often appeared to wait for the routine drug trolley round before requesting or being offered pain relief? Why are post-operative patients often prescribed the same analgesics as each other over the same period of time despite individual variation in requirements?

What is so important to doctors and nurses about four hourly prescriptions? What are the values and beliefs of nursing personnel regarding pain relief? How do these beliefs and values influence the interpretation of patients' requirements? Finally, how much knowledge do nurses have about the use of analgesics and other pain relief measures? Several incidents led me to develop the impression that there are three basic contributory factors behind patients suffering pain unnecessarily:-

1. Lack of knowledge of nursing and medical staff regarding potential effectiveness of analgesics and other pain relieving measures.
2. Incongruence between the pain relief values of patients, nursing staff and medical staff.
3. Lack of communication between patients, nursing staff and medical staff.

The problem of nursing management of the patient in pain needs urgent attention. I was particularly influenced by Jack Hayward's (1975) findings in his study 'Information: A prescription against pain'. His comment that "nurse educators bear a heavy responsibility for the formation of nursing attitudes" (p. 120) had a profound effect on my research design and tactics. The study of the effect of pre-operative preparation of surgical patients on post-operative stress, recovery and infection by Jennifer Boore (1978) was a further impetus, as was the survey of patients with protracted pain described by Jennifer Hunt et al (1977). Added to this list are several articles and research findings of nurses in the United States, particularly those of Laurel Archer Copp, Ada Jacox and Margo McCaffery. My attention was caught also by the traditional dichotomy which often exists between nursing education and nursing service. I had the impression that deficiencies of nursing education were partly responsible for the current shortcomings in practice. The project attempts to bring education and practice closer together.

The data collection for the pilot study has only recently been completed. I am therefore unable to present any results of analysis at this time - but I would like to give you some background to the support and sustenance which I refer to later, in the form of a brief outline of the project. Intensity and duration of pain experienced by post-operative patients following selected surgical procedures are measured, the independent variable being the form of education on pain management of the nursing staff. For one group of patients over a fixed period the nursing management of pain is carried out against the conventional background and experience of all the ward nursing staff. For the second group of patients, data are collected following involvement of the nurses in a ward based educational discussion programme on various aspects of pain and pain relief. Data

are also collected on the nurses' beliefs and values about pain and its relief, and from patients, following discharge home, on their subjective impressions of the suffering and general hospital experience.

I will not elaborate here on the organisational problems involved in the implementation of the ideas in the project or the strategies used for gaining access to the clinical area. I have been encouraged, however, by the fact that Margaret Alexander survived the experience of her study ('An experiment in integration of theory and practice in nursing', 1980) which also took place in a clinical setting. (Some of you may have heard her talk earlier today entitled 'Baptism of Fire').

The academic experience

I would like to say something now about the transition from working in a hospital to being a student in an academic setting. Williamson (1972) has suggested that a nurse's socialisation in a clinical environment is likely to provide her with a value and reward system different from that prevailing in the academic world. What she was saying is that the institutional values operating in the clinical setting mean that staff are rewarded for conformity to routine rather than for innovation. I found that meeting nurses in the Department of Nursing Studies and the Nursing Research Unit was particularly refreshing because they are an autonomous group, whereas nurses working in hospitals may tend to be (or feel) dominated by the medical profession. Smith (1972) has also made this point, and noted the contrast between university and hospital values in that the university tradition supports freedom, inquiry and scholarship.

The Nursing Research Unit had planned an orientation week for new postgraduate students which I found a very helpful and informative introduction. Conway and Glass (1978) have suggested that this kind of introduction is a necessary step in the socialisation of the nurse teacher in her transition from the clinical to the academic environment. It would appear to be a useful process for postgraduate nursing students also.

Shipman (1976) has described the experience of research as indelible. I, too, have found that the experiences of the past year spent as a novice researcher are unlikely to be forgotten. I would like to use a mnemonic to look at some of them. In this respect I have been influenced by Dr. Hockey's use of mnemonics in seminar situations.

- N Stands for the newness of the work situation and life-style, for the novelty of freedom to structure my own working day (and night) and also for the nervousness that goes with facing new experiences.
- O Is for the openness to new ideas as the literature was explored and conversations took place with the more experienced nursing researchers in the Unit. O is also for the overtures made to clinical areas for access and, despite a few ups and downs, the feeling of optimism.
- V Must be for the volume of reading and the visits to hospitals to select suitable areas for data collection.
- I Has to stand for insomnia, particularly in the initial planning stages, and the frequent use of inter-library loans. I is also for the feeling of isolation as I became more involved and immersed.
- C Must stand for three children, aged 11, 9 and 4, who seem somehow to take it all in their stride but nevertheless comment now and again about their nutritional requirements! C is also for the sense of commitment which is strong, and for the "Cropper" (the worry that I will come a ...). C stands for candle, which gets burnt at both ends.
- E Is for the enjoyment of doing something I had wanted to do for a very long time and for the exhilaration and exhaustion I have felt at times. E also stands for the enthusiasm I have but which I realise I cannot always expect others to share.

Whilst I acknowledge that not everyone can be expected to share my enthusiasm, I really could not have survived the year without support and sustenance in three areas: financial, psycho-social and academic. I would now like to go on to discuss these support systems.

Support

I am very grateful to the Scottish Home and Health Department for financial support, and particularly to the Nursing Fellowship Committee and Nursing Officers for their encouragement and interest.

Psycho-social support has come from a variety of sources, mainly though from my husband - himself a researcher. Platt (1976), in a sociological study of social researchers, suggests that every piece of social research depends to some extent on the co-operation of people outside the study. She comments on the conditions which make it practical for married women to carry out research (which, as you know, demands a high level of involvement). In a sample of 121 social researchers interviewed by her (96 men and 25 women), 9 women were

married, 8 of them to husbands in academic life. I agree with Platt who suggests that an academic occupation of a spouse provides flexibility of timetable to fit in with the demands of research and domestic commitments. I have found competition for time, energy and interest between various roles over the past year. Boalt (1969), another researcher of researchers, points out that the researcher has several roles but that, in one sense, the role as researcher is antithetical to the requirements of other roles. The researcher must, he says, "apparently be unmarried, childless, an orphan, have no brothers or sisters, friends or neighbours - nor should he eat, drink or sleep". Happily, Boalt recognises that the researcher needs his other roles in order partly to compensate for the disappointments which his research role may bring. (I seem to have the maximum buffering capacity against disappointments!)

Further support has come from attending the Third International Congress of the International Association for the Study of Pain, which was held recently in Edinburgh. It was a terrific experience to meet, listen to and talk with other nurses, psychologists, sociologists, scientists, doctors and dentists from all over the world; all concerned with the fundamental issue of pain. The experience has given me encouragement which will keep me going for some time - even though, as Professor John Bonica pointed out in his presidential address, only 38 nurses in the world are members of IASP. (I hope it will soon be 39).

Turning now to academic support, there are two aspects I would like to discuss. First is the fact that I have been based in the NRU and have a place to work there. Boalt (1969) has suggested that it is important for a student to be given his own working area in the department. I know that this privilege is not always extended to postgraduate students in other faculties. It has been very significant for me to have a base in the Unit. The day to day contact with members of staff has played an important part in my learning experiences during the past year, particularly since there have been several current research programmes in clinical areas. Boalt (1969) has also suggested that the most important learning by research students takes place within their department, where the student discovers how difficult it is in practice to satisfy the requirements of scientific values which, in theory (that is to say, in textbooks and lectures), are simple. There are certainly a variety of ways in which the character of a university setting makes an impact on a new student, but my experience has shown that the research staff in the Unit do not confine their support to matters of an academic nature. As people they have been interested and caring.

The second form of academic support I would like to mention is in reference to the role of Academic Supervisor. I have two formal supervisors, one in nursing education and the other in medical statistics, and two advisors, one from the Department of Anaesthetics

and the other a sociologist. I gather that no formal guidelines are laid down by Edinburgh University other than that students are obliged to report progress to appointed supervisors at least twice a term, and supervisors are obligated to make themselves available to the student. It would seem then, that the role of academic supervisor is one which is open to individual interpretation. The literature has a little to offer on this. Awtry (1979), in an account of her experiences in a doctoral programme for nurses in the USA, described her real appreciation of the differences between a teacher and facilitator: "student endeavours to dig out a definitive comment from a facilitator are as fruitless as trying to nail jello (jelly) to the wall". W.H. Auden (in Cohen and Cohen, 1963) is quoted as saying: "a professor is one who talks in someone else's sleep". My four year old daughter has endearingly described the role of one of my academic supervisors as "Mummy's Rough-essor".

My impression of academic supervision has prompted me to produce another mnemonic.

- S Is for the sensitivity to individual educational needs.
- U For the understanding of the goals of the project.
- P For persuasiveness but not pressurising.
- E Is for eloquence and at time entertaining discussions.
- R For the recollection of what I am doing.
- V Is for clear vision.
- I For the interest in the study and the progress being made.
- S Stands for the stimulation of thoughts and ideas.
- O For the offering of suggestions.
And last but not least:
- R Is for the rejection of weak ideas.

The literature suggests that research students survive because they receive scientific guidance and have other students with whom to talk things over, learn from and find comfort in through exchange of experiences. It is from fellow students that the day to day sustenance comes. We have a common goal and a shared identity. Sasmor (1979) claims that doctoral candidates within an institution communicated freely with each other and were inter-dependent, at least for support.

In planning this paper I had hoped to propose a model for the functioning of a new nurse researcher but, whilst in the Botanic Gardens last weekend, I changed my mind when I was asked: "Mummy, how do

trees grow? What happens to them when the wind blows?" So, in the belief that nature is above all art, I offer the illustration shown in Figure 1. It is a visual analogy of the newly planted sapling and the novice nurse researcher. The roots are labelled with the qualities of (dare I say it) a budding investigator, and for this sapling are planted firmly in the NRU. As Kenneth Williams in the BBC Radio programme of the 1960s would have said: "The answer lies in the soil" (the little blobs are the essential trace elements). The sapling is strapped to the pole by three firm bands which give it support. The natural elements, the sun and the rain, promote growth, and the fertiliser encourages the production of fruit, but the sapling is exposed to the unpredictable effect of another natural element, the wind.

In O'Toole's book on the organisation, management and tactics of social research, Freeman (1971) quotes an esteemed expert on social research as having remarked: "Doing research is like making love in a Volkswagen. It seems impossible, but if the need is great enough and the parties involved resourceful and not easily discouraged, it is simply amazing what can be accomplished". Well, the need is great, I have described the resources as I see them and I will strive to produce some edible and digestible fruits on the tree, spurred on by the wisdom of Aristotle: "A plausible impossibility is always preferable to an unconvincing possibility".

Conclusion

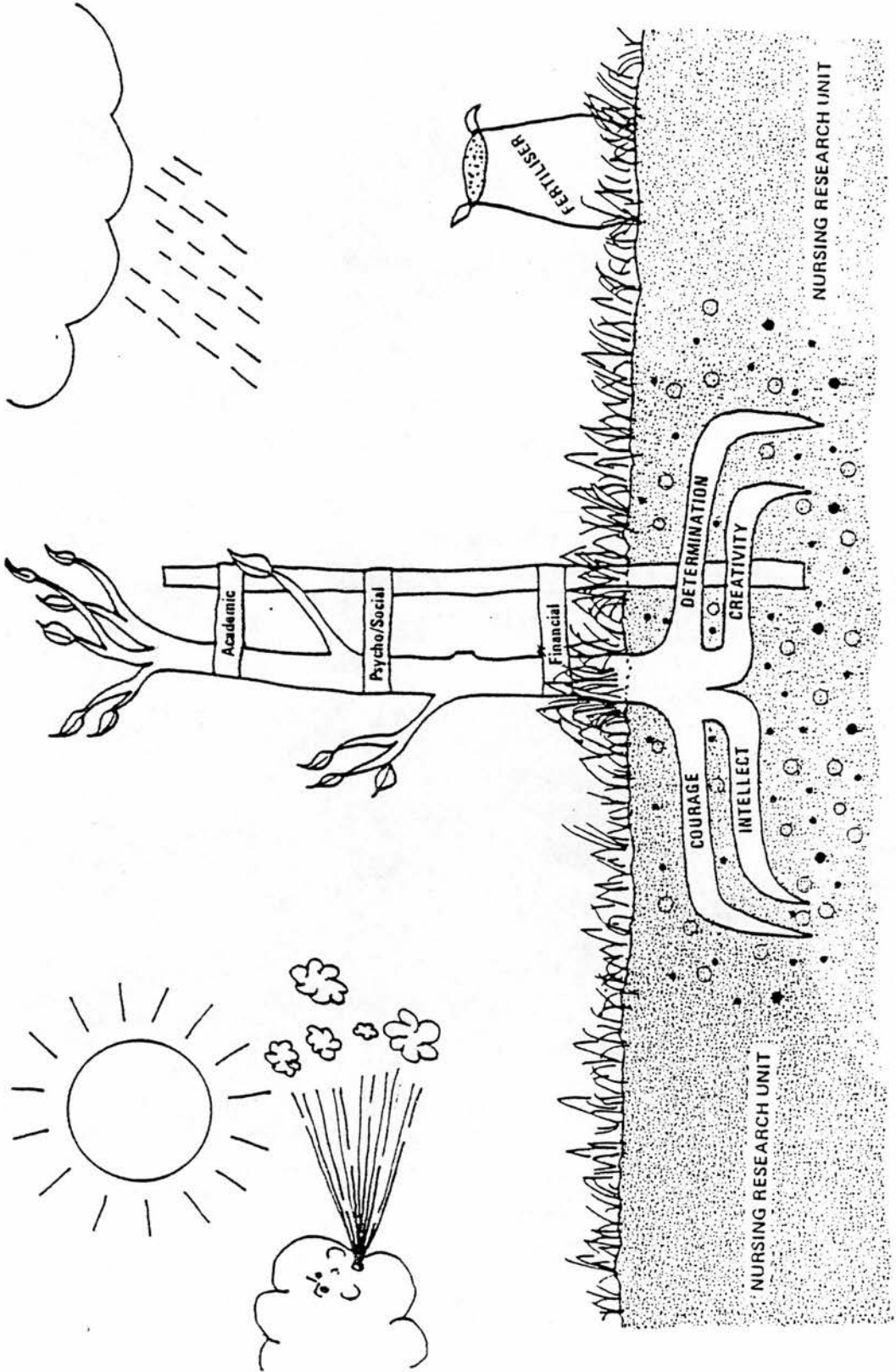
What I have tried to do is to trace the evolution of an idea into an on-going project in the clinical area and to summarise some of the human experiences involved. I hope it will be of interest to our profession and to those who encourage nursing research, as well as being of help to newcomers. I hope also that it might provide some pangs of nostalgia for the more experienced.

In closing, I would again like to refer to Lewis Carroll's story of 'Alice in Wonderland'. Alice's adventures were a dream, while mine are based on the reality of nursing. Nevertheless, after the first year of research training, I find myself, like Alice, becoming "curiouser and curiouser". This curiosity could never have developed without the sources, supporters and sustainers discussed in this paper.

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FIGURE 1



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APPENDIX IVb

Sofaer, B. (1982) The Functioning of Nursing Teams in Surgical Wards in relation to Relieving Patients' Pain. British Association for Social Functioning.

THE FUNCTIONING OF NURSING TEAMS IN SURGICAL
WARDS IN RELATION TO RELIEVING
PATIENTS' PAIN

Beatrice Sofaer, B.A., S.R.N., S.C.M., R.C.T.

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"In order to exist as a member of society each individual must achieve a minimum level of satisfaction in life. It does not matter where it comes from - whether from work or from money, whether a little from here or a little from there, so long as it adds up to a general feeling of well-being. Once sufficiently satisfied, a person can cope with problems and difficulties as they arise." (p. 123, Mental Illness and Social Work, Eugene Heimler, Penguin Books, Harmondsworth, Middlesex, England, 1967.)

Introduction

One dimension of nurses' work in surgical wards is the relief of pain of patients who have had operations. There are many difficulties involved in this aspect of caring due to the subjective nature of pain and various attitudes and beliefs of nurses. In addition, nurses work within the framework of medical prescriptive practice and although they are in a unique position to identify pain cues of patients, may often feel the need to be bound by arbitrary prescriptive time schedules (Dodson, 1982). An extensive review of the literature supports the view that nurses often do not recognise when a patient has pain and that patients often seem to be suffering pain unnecessarily.

The author's current work is aimed at assessing the value of a ward-based educational programme, on various aspects of pain and its relief, for nursing teams in surgical wards. Such education could be of value in helping nurses to assess pain better, thus facilitating effective therapy. Prior to implementing the educational programme, because values and beliefs of nursing staff vary, it is felt necessary to ascertain the nursing teams' beliefs, values and knowledge

about pain and its relief. A team approach is adopted rather than an individual one because care is given to a patient in hospital by several nurses. Furthermore, nursing is a stressful profession and nurses may often feel a sense of powerlessness, particularly in areas where knowledge is lacking. Menzies (1970) has described the mode of functioning of nurses as influenced by a number of factors, among them being the needs of team members for social and psychological satisfactions. It is some preliminary findings on this aspect of the work that are reported here.

Choice of the Work Orientation Schedule

Fulcher (1981) has stressed that the quality of service provided by group care personnel is related to job satisfaction and the quality of working life. It may therefore follow that the quality of care given by nurses can be influenced by their own satisfactions, both in life generally and at work. More specifically, Maier (1977) has suggested that care givers are enriched or limited as agents of care according to the care they themselves receive. Nevertheless, nurses are one group of carers who have little in the way of organised psychological support, although the need has been recognised (Royal College of Nursing, 1978). With these factors in mind, the author wishes to establish an empathetic rather than a critical tone when investigating nurses' feelings in relation to their caring for patients in pain. The Work Orientation Schedule (1981) is felt to be a suitable, unobtrusive tool with which to measure nursing teams' satisfactions and frustrations.

Fulcher (1982) has described the refining of the Work Orientation Schedule, adapted from the Eugene Heimler Scale of Social Functioning (1967). He has also described the content of the scale and its response pattern. After discussion with Fulcher in 1981, and after permission had been given by Eugene Heimler for its use by the author in a research setting with nurses, the author undertook Heimler training in preparation for administering the scale. It was felt that administering the scale to nurses would have three advantages. First, it would help to establish rapport, thus providing an empathetic environment in which to initiate the educational programme. Second, the corporate balance of satisfactions and frustrations of a team could be ascertained. Third, administering the scale should provide a source of support for the nursing team, in that nurses would know that the researcher was interested in and supportive of them as people and therefore not taking a critical perspective of their feelings and opinions.

The Nursing Teams

Data are currently available for two teams of nurses. The first, Team A, comprised 18 nurses who worked on a

gynaecological ward in a general hospital over a period of ten weeks. The scale was administered to 16 of these nurses. The second, Team B, comprised 19 nurses working on one ward in an orthopaedic hospital over a period of 19 weeks. The scale was administered to all these nurses. The numbers of staff of different categories interviewed are shown in Table 1 (all female except those shown in brackets). Ages ranged from 18 to 53 years for Team A (18 to 25 for student nurses) and from 21 to 55 years for Team B.

Table 1

Categories of staff interviewed

	<u>Charge Nurse</u>	<u>Staff Nurse</u>	<u>Enrolled Nurse</u>	<u>Enrolled Nurse Post-basic Course</u>	<u>Student Nurse</u>	<u>Nursing Auxiliary</u>	<u>Registered General Nurse Post-basic Course</u>
Team A	2	2	-	-	10	2	-
Team B	1	3 (1)	5	5	-	3	(1)

Table 2

The relative permanence of the staff
in the two teams

	<u>Total Interviewed</u>	<u>Working together for more than 6 months</u>	
		<u>Number</u>	<u>Per cent</u>
Team A	16	3	19
Team B	19	8	42

Administration of the Work Orientation Schedule

The following introduction to the Work Orientation Schedule was given to each nurse respondent:-

"My name is Bea Sofaer. I am a nurse carrying out some research. I am particularly interested in the satisfactions and frustrations which nurses experience in their work and how these may relate to our care of patients. I wonder if you would be willing to help me try to find some of the answers by allowing me to interview you about some of your feelings and opinions. All information will be treated in strict confidence and used only for the purpose of my research. Some of the questions relate to the more

general satisfactions and frustrations in life. This is because it may be that frustrations and satisfactions at work and outside work have connections. There is no way that anyone could identify any person from the interview schedule. The entire interview would take about 30-40 minutes and is in three parts. The first section will take about 15 minutes and consists of a set of questions designed to identify patterns of satisfactions and frustrations. Could you please answer each question as you feel here and now - today - indicating 'Yes', 'Perhaps' or 'No'. If you are not sure, or the answer is 'Sometimes', please answer 'Perhaps'. I hope you won't find the questions too personal. I will ask you how you feel about certain aspects of your life, for example your financial and home life, but not intimate or probing questions."

Following the administration of the Work Orientation Schedule, nurses were interviewed regarding their beliefs and values in connection with their work as a nurse and particularly in relation to managing pain.

The Schedule, as administered to each team member, is reproduced at the end of this paper. The Schedule consists of a Satisfaction Index that assesses five areas of satisfaction: Work, Finance, Social Life, Home Life and Personal Contract; and a Frustration Index containing questions relating to Activity, Health, Influences, Moods and Habits. Each question is given a 'Yes', 'Perhaps', or 'No' response, scored as 4, 2 or 0 respectively. In addition, there is an Outlook on Life Index measured on a scale from 1 to 20.

Results

For Team A the highest satisfactions were in the area of Home Life while the lowest satisfactions were found for Personal Contract (b. Do you feel that someone at work is concerned about your wellbeing?), Work (d. Do you have any really satisfying hobbies?) and Social Life (e. Is your social life a good balance to your working life?). There was considerable uncertainty in the area of Finance (a. Do you live better than you did two years ago?). The highest areas of frustration were found for Habits (d. Do you tend to eat too much or too little?) and Personal Influences (a. Do you at times feel disappointed by people with whom you work?). There was the greatest uncertainty in Activity (e. Do you feel frustrated because you are prevented from doing things properly?) and Moods (e. Do you find that people are often unappreciative of your efforts?).

For Team B the highest satisfactions were found for Social Life (c. Outside your family, do you feel there are people

who really care about you?) while the lowest levels of satisfaction were found in Work (e. Have you enough opportunity for getting on in your work?), in Finance (b. Are you able to save?) and in Personal Contract (b. Do you feel that someone at work is concerned about your well-being?). The highest level of frustration was found for Personal Influences (a. Do you at times feel disappointed by people with whom you work?), while there was uncertainty in the area of Habits (d. Do you tend to eat too much or too little?) and Activity (e. Do you feel frustrated because you are prevented from doing things properly?).

The Outlook on Life Index showed very similar patterns for the two teams, the scores being within the acceptable range of eight points between the mean positive total and the score for the outlook on life.

The corporate pentangular diagrams showing the mean scores for each team are shown in Figures 1A and 1B. For each team the outer line encloses an area that represents satisfactions and the inner line encloses an area that represents frustrations.

Discussion and Conclusions

There were common findings for both teams indicating lack of concern for their personal wellbeing at work and frustration in relation to work performance. These themes raise the question of the extent to which nurses feel valued in their work and highlight the need for psychological support of nurses in their work situation; important considerations if nurses themselves are to feel cared for so that they in turn can effectively support and care for others. Furthermore, the disappointment members of each team expressed with each other has important implications for the consistency of patient care.

The two teams differed in their level of satisfaction in Work (e. Have you enough opportunity for getting on in your work?) with Team B showing one of the lowest and Team A one of the highest levels of satisfaction. This difference may have been related to the relative transience of Team A and permanence of Team B. The level of ward staff turnover may, therefore, have both indirect (psychological) as well as direct (logistic) effects on the quality of patient care.

The findings have important implications for the management of post-operative pain in that a caring, empathetic and consistent approach, based on congruent beliefs and values among members of the nursing team, is essential for patients' pain to be recognised and relieved. It is hoped that, using the Work Orientation Schedule as a guide in supporting the nursing staff through a period of educational change, it will be possible to show that a team's use of its own caring potential can be improved, leading to more effective pain relief.

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Acknowledgements

I am grateful to Leon Fulcher and Dr. Diana Bates for their encouragement and advice in the preparation of this paper.

WORK ORIENTATION SCHEDULE

Please answer each question according to the way you feel today.
 Circle Y to indicate YES. Circle P to indicate PERHAPS or sometimes.
 Circle N to indicate NO.

If you are not sure how you feel, answer PERHAPS.

WORK (EMPLOYED-STUDENT)

- | | | |
|---|---|---|
| a. Do you like what you are doing?.....Y | P | N |
| b. On the whole do you like the people you work with?.....Y | P | N |
| c. Do you feel this is the right activity for you?.....Y | P | N |
| d. Do you have any really satisfying hobbies?.....Y | P | N |
| e. Have you enough opportunity for getting on in your work?.....Y | P | N |

FINANCE

- | | | |
|---|---|---|
| a. Do you live better than you did two years ago?.....Y | P | N |
| b. Are you able to save?.....Y | P | N |
| c. Do you feel at ease about spending?.....Y | P | N |
| d. Are you reasonably secure financially?.....Y | P | N |
| e. Do you feel financially secure?.....Y | P | N |

SOCIAL LIFE

- | | | |
|--|---|---|
| a. Do you feel happy about your social life?.....Y | P | N |
| b. Have you a close friend in whom you can confide?.....Y | P | N |
| c. Outside your family, do you feel there are people
who really care about you?.....Y | P | N |
| d. Would you want your friends to turn to you with
their problems?.....Y | P | N |
| e. On the whole, is your social life a good balance
to your working life?.....Y | P | N |

HOME LIFE

- | | | |
|--|---|---|
| a. Is your housing arrangement alright?.....Y | P | N |
| b. Are you interested in family activities?.....Y | P | N |
| c. Do you have someone with whom you can discuss
money, work or other problems?.....Y | P | N |
| d. Do you enjoy home life?.....Y | P | N |
| e. Is there someone who understands you?.....Y | P | N |

PERSONAL CONTRACT

- | | | |
|--|---|---|
| a. Are you really satisfied with your current work
arrangements?.....Y | P | N |
| b. Do you feel that someone at work is concerned
about your wellbeing?.....Y | P | N |
| c. Does your work activity bring you some sense of
fulfilment?.....Y | P | N |
| d. On the whole, are you content with the aims and
objectives of your work?.....Y | P | N |
| e. Can you relax?.....Y | P | N |

Total Satisfactions: Yes _____ Perhaps _____

ACTIVITY

- | | | |
|--|---|---|
| a. Do you feel overworked?.....Y | P | N |
| b. Do you feel too tired to work?.....Y | P | N |
| c. Do you feel that your mind is underactive?.....Y | P | N |
| d. Do you feel too tired to enjoy life?.....Y | P | N |
| e. Do you feel frustrated because you are prevented from
doing things properly?.....Y | P | N |

HEALTH

- | | | |
|---|---|---|
| a. Do you have frequent headaches?.....Y | P | N |
| b. Do you suffer from aches and pains?.....Y | P | N |
| c. Is sleep a problem for you?.....Y | P | N |
| d. Are you concerned about your health?.....Y | P | N |
| e. Is your imagination painful to you?.....Y | P | N |

INFLUENCES

- | | | |
|---|---|---|
| a. Do you at times feel disappointed by people with
whom you work?.....Y | P | N |
| b. Do you often find that people like being hurtful to you?.....Y | P | N |
| c. Do you feel that circumstances are often against you?.....Y | P | N |
| d. Do you feel that people are at times against you?.....Y | P | N |
| e. Would you like to have more power and influence?.....Y | P | N |

MOODS

- | | | |
|---|---|---|
| a. Are you at times very depressed?.....Y | P | N |
| b. Do you often feel vaguely insecure in your work?.....Y | P | N |
| c. Do you feel unduly guilty about your contribution
as a worker?.....Y | P | N |
| d. Do you ever wish you could quit?.....Y | P | N |
| e. Do you find that people are often unappreciative
of your efforts?.....Y | P | N |

HABITS

- | | | |
|---|---|---|
| a. Are you inclined to smoke or drink too much?.....Y | P | N |
| b. Do you take drugs or medicines to help you to feel better?...Y | P | N |
| c. Do you tend to get over-active or over excited?.....Y | P | N |
| d. Do you tend to eat too much or too little?.....Y | P | N |
| e. Are you driven to do things which cause trouble for
yourself or others?.....Y | P | N |

Total Frustrations: Yes _____ Perhaps _____

OUTLOOK

Here is a scale from 0 to 20. "0" indicates "not at all"; "20" indicates "completely".

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
																		"Not at All"	"Completely"	

For each question, pick a number which indicates how you feel today:

- | | |
|--|-----------|
| | Scale No: |
| a. How far are you achieving your ambition in life?..... | _____ |
| b. How far do you feel hopeful for the future?..... | _____ |
| c. How far do you feel that your life has meaning?..... | _____ |
| d. How far does life give you enough opportunity for
self-expression?..... | _____ |
| e. When you look back, how far do you feel that life was
worth the struggle?..... | _____ |

Total OUTLOOK (add five numbers) _____

FIGURE 1A

HEIMLER WORK
ORIENTATION
SCHEDULE, 1970

TEAM A

SCALE	TOTALS T(4's) / T(4+2's)	MEAN TOTAL
POSITIVE	82.0 / 86.2	84.1
NEGATIVE	13.8 / 27.7	20.75
OUTLOOK ON LIFE	x x x	78.9

CRISS-CROSS

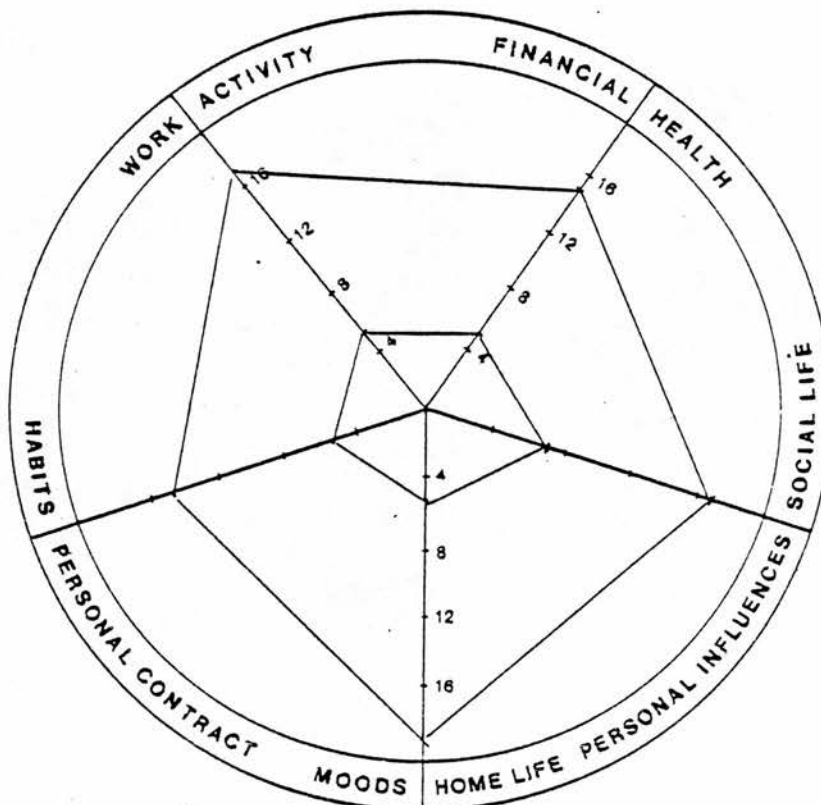
BEST = .160
WORST = .338

SATISFACTION INDEX								FRUSTRATION INDEX							OUTLOOK ON LIFE
Area	part	1	2	3	4	5	Totals	Area	1	2	3	4	5	Totals	
WORK		4	3.8	3.6	2.8	3.0	15.3/ 17.1	ACTI- VITY	0.9	0.8	0.6	0.4	2.1	1.8/ 4.8	1 13.5
							/	HEALTH	1.6	1.0	0.6	0.6	0.4	1.8/ 4.3	2. 15.6
FINANCE		2.9	3.0	3.5	4	3.0	15.8/ 16.4	PERS. INFL.	2.8	0.6	1.0	1.6	1.6	3.2/ 7.6	3. 17.1
SOCIAL LIFE		3.3	3.5	3.8	3.6	2.8	15.3/ 17.0								4. 14.0
HOME LIFE		3.6	3.6	4	4	4	19.0/ 19.3	MOODS	0.8	1.4	0.3	0.9	2.3	2.5/ 5.6	5. 18.6
PERSONAL CONTRACT		3.1	2.3	3.8	3.5	3.8	14.8/ 16.5	HABITS	0.8	0.4	1.1	3.3	0.3	1.5/ 5.8	
(Add only 1 part per area)								Totals: ↑ /							

(Add only 1 part per area)

Totals: ↑ /

Totals: / ↑



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FIGURE 18

HEIMLER WORK
ORIENTATION
SCHEDULE, 1970

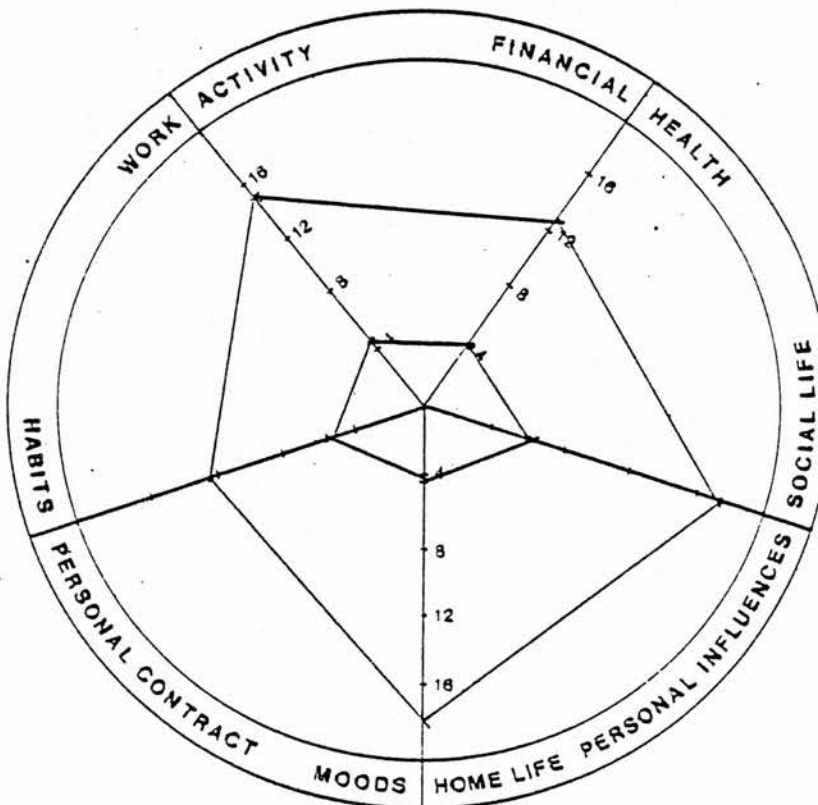
TEAM 8

SCALE	TOTALS T(4's) / T(4+2's)	MEAN TOTAL
POSITIVE	74.7 / 82.5	78.6
NEGATIVE	13.9 / 24.3	19.1
OUTLOOK ON LIFE	x x x	81.7

CRISS-CROSS

BEST = .168
WORST = .325

SATISFACTION INDEX								FRUSTRATION INDEX							OUTLOOK ON LIFE
Area	part	1	2	3	4	5	Totals	Area	1	2	3	4	5	Totals	
WORK		3.9	3.9	3.5	2.8	1.9	15.2/ 16.0	ACTI- VITY	0.8	0.6	0.6	0.1	2.2	1.9/ 4.4	1. 14.4
							/	HEALTH	1.4	0.7	0.7	0.8	0.4	2.7/ 4.1	2. 15.9
FINANCE		2.7	2.2	2.8	3.3	2.8	12.4/ 13.9	PERS. INFL.	2.7	0.3	1.2	0.7	1.3	3.8/ 6.2	3. 18.5
SOCIAL LIFE		3.3	3.7	4	3.8	3.2	17.1/ 17.9	MOODS	0.7	0.9	0.4	0.8	1.3	1.7/ 4.2	4. 15.1
HOME LIFE		3.6	3.5	3.8	3.9	3.7	17.9/ 18.4	HABITS	0.8	0.1	1.3	2.3	0.8	3.8/ 5.4	5. 17.8
PERSONAL CONTRACT		2.9	2.4	3.7	3.6	3.7	12.2/ 16.3								
(Add only 1 part per area)							Totals: ↑ /	Totals: / ↑							



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APPENDIX IVc

Sofaer, B. (1983) The effect of focused nursing education on post-operative pain relief: A pilot study. Swedish Nurses' Association, Stockholm.

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THE EFFECT OF FOCUSED NURSING EDUCATION ON POST-OPERATIVE PAIN RELIEF: A PILOT STUDY

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"The quality of mercy is not strain'd,
It droppeth as the gentle rain from heaven
Upon the place beneath: it is twice blest;
It blesseth him that gives and him that takes"
The Merchant of Venice. Act IV. Scene 1.
William Shakespeare.

Introduction

Sadly, when it comes to post-operative pain relief, the quality of mercy would appear to be very strained indeed and it does not drop gently from heaven upon those patients suffering pain following surgery. The nurse, however, is in a unique position to identify pain cues and, while working within the prescriptive framework of a doctor, to maintain pain control. The importance of nursing intervention in the prevention and relief of pain has been discussed previously (e.g. Diers, 1972) and pain can be assessed with a view to optimising relief (Bourbonnais, 1981; Hunt, 1977; Knight & Mehta, 1978; Melzack, 1975; Roland, 1978). Nevertheless, several reports have shown that clinical practice falls short of what can be achieved (Benzshawel, 1978; Charap, 1978; Cohen, 1980; Hunt, 1977; Jacox, 1979; McCaffery, 1979) and it has been suggested that organised teaching programmes for medical and other health professionals are needed to improve the situation (Bonica, 1981). With particular reference to nursing, there is evidence to suggest that a nurse's background knowledge of pain relief may be inadequate (Benzshawel, 1978; Hayward, 1975; Hunt, 1977).

The primary aim of the present study was, therefore, to assess the practicability and effectiveness of a clinically based educational programme for all levels of ward nursing staff on pain management.

Subjects and Methods

All data were collected and the educational programme conducted by the author.

Subjects included both patients and nurses on a 21-bed ward in a general hospital. Patients were females, aged from 23-50 years, who had undergone elective surgery for non-malignant gynaecological disease and who were discharged from hospital within the normally expected time for the particular ward in which they were patients. Data were collected from seven patients before the introduction of the educational programme (Group A) and 10 patients after its completion (Group B). Nurses comprised 18 (of a total of 20) day staff, both trained and untrained, who were part of the ward team during the 10 week period of the study. Nurses were not informed of the details of the author's contact with patients, and patients were requested to maintain confidentiality both among themselves and between themselves and the nursing staff as far as the study was concerned.

1. The Ward Based Component of the Study

(a) Weeks 1-2:

Group A patients were approached on Day 4 (Day 1 = day of operation) and their participation requested. Following agreement to participate, graphic rating scales as illustrated in Figure 1 were shown to each patient who was asked to mark the scales to indicate the average level of pain intensity and duration for each of the three preceding days.

Fig. 1. Graphic rating scales

Intensity of Pain

NO PAIN _____ PAIN AS BAD AS IT COULD BE
S L I G H T M O D E R A T E S E V E R E

Duration of Pain

NO PAIN AT ANY TIME _____ PAIN ALL THE TIME
S H O R T M O D E R A T E L O N G

A graduated scale of the same length, comprising 20 equal subdivisions, was subsequently superimposed on each graphic rating scale to convert the response into a numerical score. This has been shown to be the approach least likely to introduce bias into the scoring method (Scott & Huskisson, 1976). It has also been shown that subjects can recall pain experiences for up to five days (Hunter, Philips & Rachman, 1979). Information relevant to each patient was noted from the nursing and medical records and drug kardex. A letter was sent to each patient's general practitioner giving information about participation in the study, and a request was made for the author to visit each patient at home after discharge.

(b) Weeks 3-5:

Nurses were interviewed at times convenient to the ward. Each interview started with the Heimler Work Orientation Schedule (adapted from Heimler, 1967; see Heimler, 1975). The Schedule was used primarily to measure nurses' balance of satisfactions and frustrations. It was felt also that its use would help to establish rapport between the researcher and nurse respondents, thus providing an empathetic and supportive environment for respondents and facilitating the initiation of the educational programme. The administration of the Work Orientation Schedule was followed by a semi-structured interview concentrating on individual knowledge and beliefs, and on ward practice relevant to pain relief.

Four one-hour discussion group meetings for the nursing team were scheduled during patient visiting times. Members of the team unable to attend were, as far as possible, exposed to the same material in additional small group meetings or one-to-one sessions. The principles of the educational programme were based largely on those developed by Carl Rogers (Rogers, 1971), including interaction between participants, problem solving and decision making in the area of pain management. Particular emphasis was placed on four aspects: psychological factors, sociocultural influences, the value of assessment and the use of analgesia. Reading material on aspects of pain and pain management was made available on the ward after the first scheduled meeting, but no record

was kept of how much reading was done by each nurse.

(c) Weeks 6-10:

Group B patients were approached and studied in the same way as Group A patients.

Three newly arrived members of the nursing team were interviewed and involved in small group discussions.

2. Home Visits

Each participating patient was visited at home approximately two weeks after discharge and a semi-structured interview schedule was administered. The interview was designed to collect information about patients' previous hospital experiences, their expectations of pain relief, their subjective impressions of their coping patterns and their rating of the pain relief they had experienced during their most recent hospital stay. Pairs of questions also attempted to assess the effect of the most recent hospital experience on the patients' knowledge and beliefs about pain and its relief. One such pair of questions asked each patient to rate on a scale from 1-20 their anxiety level prior to their recent hospital experience and later in the interview the anxiety they would now feel if faced by a similar hospital admission.

Results

Implementation of the study was found to be a practical proposition with minor exceptions related to the wording of a few questions in the interview schedules. However, other problems of staff changes, off duty, holiday and sick absence were ever present. For this reason, data were incomplete on all 20 nurses. Some of the findings are discussed briefly below. Since this sample consisted only of small numbers of patients and nurses it was considered inappropriate to make tests of statistical significance.

Figure 2 shows a comparison between Groups A and B in terms of pain intensity scores on Day 1. There was a tendency for intensity to be less extreme in Group B than in Group A. A similar tendency was observed for duration of pain.

Fig. 2. Distributions of pain intensity scores on Day 1 in Groups A and B.

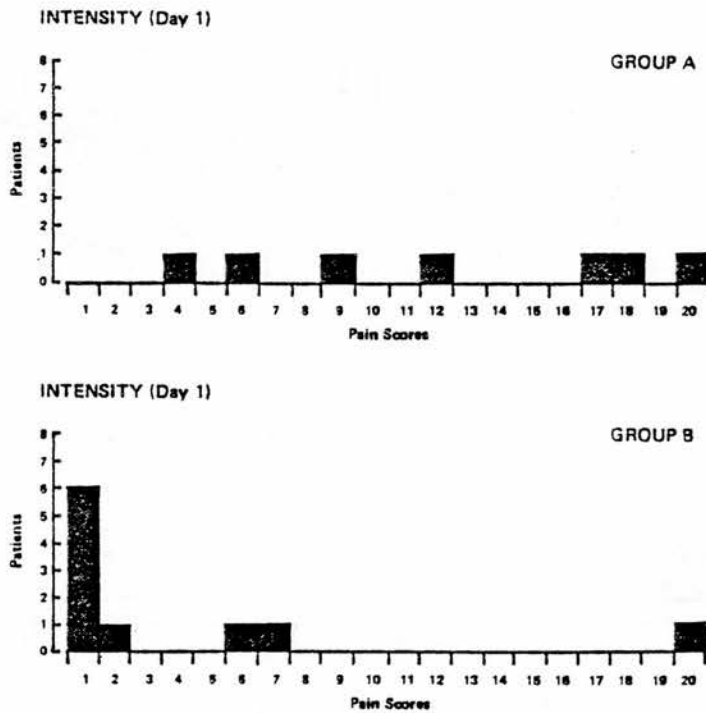


Table I shows the mean numbers of narcotic administrations, and drug round and non-drug round analgesic administrations, per patient, together with the numbers of analgesic prescription changes in the two groups over the first three post-operative days. No information was available as to why or how these changes took place but it is thought that the nursing staff requested them on behalf of the patients as a result of using a pain assessment chart. Interest had been expressed by the nursing team during the discussions in using some sort of pain assessment form and one currently in use at The London Hospital was adapted with appropriate permission. The results suggest greater nursing awareness of analgesic needs for Group B patients.

Table I. Comparison between patients from Groups A and B in terms of mean drug usage over the day of operation and first two post-operative days.

Group	Number of patients	Mean number of analgesic drug administrations per patient			Total number of analgesic prescription changes per group
		Narcotic	Routine drug round (narcotic and non-narcotic)	Non-drug round (narcotic and non-narcotic)	
A	7	2.5	4.2	1.7	1
B	10	3.4	4.8	3.5	8

Fig. 3. Changes in anxiety levels in patients of Groups A and B. (Patients No. 9 and No. 15 were not included because they failed to meet the criteria for inclusion in the study).

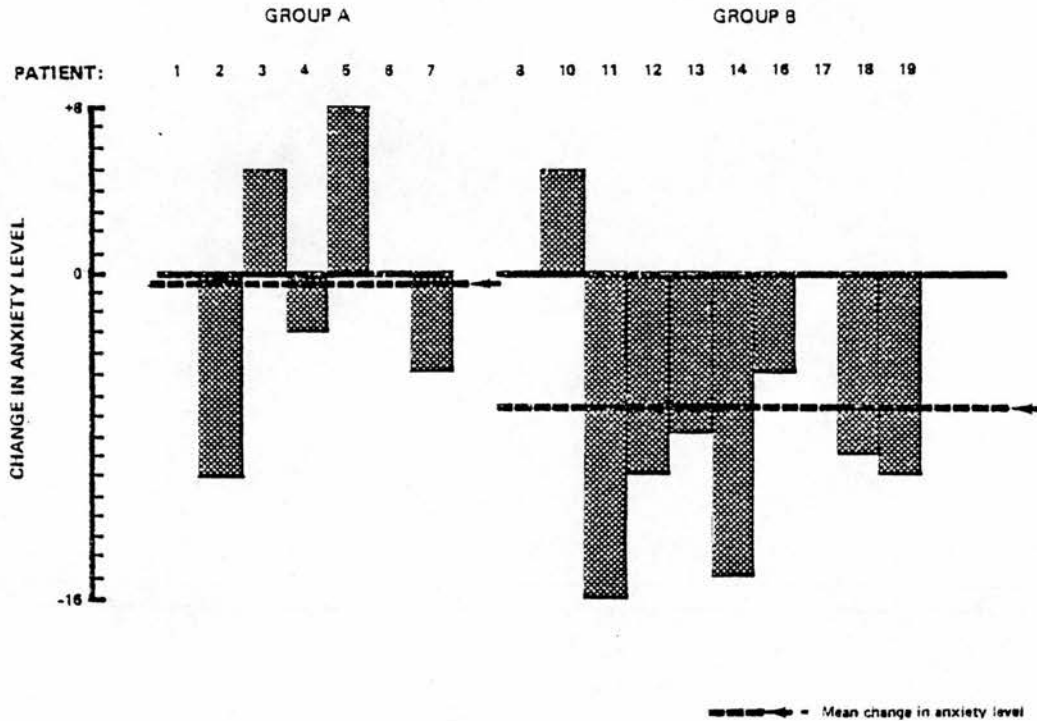


Figure 3 illustrates the difference in anxiety level ($a - b$) for each patient between that experienced before the recent hospital admission (b) and that which each patient would feel after the recent hospital experience (a) if faced with the prospect of a similar admission. Positive values indicate an increase in anxiety and negative values a reduction in anxiety as a result of the recent hospital experience. There was a tendency for Group B patients to show predominantly negative differences (mean difference -6.8) while Group A patients had a near zero mean difference (-0.7). It is interesting to note that patients No. 2 and No. 7 from Group A had had their emotional reaction to admission recorded on the nursing kardex whereas for Group B only patient No. 10 did not have her reaction assessed on admission.

During the discussion on psychological factors relating to pain the participants considered in some depth the question of relieving anxiety pre-operatively and the role that nursing staff play with regard to documentation and communication. Although no record was available of measures taken to reduce anxiety in individual situations in Groups A and B, it is thought that the fact that some nurses noted how patients felt on admission was an indication that some psychological care was regarded as appropriate. This is interesting in the light of previous nursing research findings, particularly those of Boore (1978) who did not demonstrate an association between anxiety and post-operative pain.

Results of the nurse interviews were not subjected to detailed analysis but appeared, in general, to be consistent with previous findings (Benzshawel, 1978; Graffam, 1979; Smeder Fox, 1979). There was, however, a strikingly low level of satisfactions in the area of personal contract (Heimler Scale) which does not appear to have been reported

previously for the nursing profession.

Conclusions

In general, the findings suggest that there is considerable scope for improvement in the nursing management of post-operative pain and that this can be exploited by a ward based teaching programme. It is, however, difficult to draw detailed conclusions because only small samples have been used. The approaches adopted were generally practicable and acceptable to both patients and nurses. It was therefore decided to collect further data along the same lines, incorporating minor modifications aimed at increasing the clarity of the results. The study is continuing in three different speciality areas of surgery, each in a different hospital.

Acknowledgements

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APPENDIX IVd

Sofaer, B. (1983) Pain Relief - The core of nursing practice. Nursing Times, Vol. 79, No. 47, pp. 38-42 and Vol. 79, No. 48, p. 35 (also see thesis page 349).

Pain relief— the core of nursing practice

Nurses have neglected their responsibilities for pain relief, says Beatrice Sofaer. Here she gives an interim report of her ongoing study of postoperative pain management

I don't think that nurses think it is their job to bother about pain relief.

(A patient—two weeks after emergency abdominal surgery, 1983)

It was quite an eye-opener, really. I now equate hospitals with pain, really, and before I thought they were fairly pleasant places and that they (the staff) were there to look after you. I must admit I have a different opinion now, totally.

(A patient—2½ weeks after elective gastric surgery, 1982)

PAIN is a complex phenomenon known to many but defying definition. Any description of pain must take cognisance of neurological, physiological, behavioural and affective factors¹. Despite difficulties in defining pain there have been many advances in recent years in the development of methods of pain control, made possible by contributions from a wide range of disciplines including the biological, behavioural and applied clinical sciences. Nursing is a unique mix of other disciplines² and nurses are in a unique position to assess individual patient's pain, taking into consideration psychological, sociological and physiological factors. In the practical situation, where nurses are faced with the consequence of pain for the patient, it is particularly important for the nurse to adopt an *operational* definition of pain: 'Pain is what the patient says it is, existing when he said it does'³.

In relation particularly to the control of postoperative pain, the most commonly used form of relief is analgesic drugs, frequently prescribed 'PRN'—as necessary. There is, however, evidence that many patients suffer unnecessary pain postoperatively. This may be for a variety of reasons, many of which appear to be related to nursing care. Relief of pain, however, should be at the very core of nursing practice. It

seems to me this is an area where we have overlooked our responsibilities, in terms of both education and practice.

The literature suggests that nurses do not recognise when a patient has pain, that different nurses seem to act different roles in relation to providing pain relief and that nurses' background knowledge of analgesics and analgesia may be inadequate^{4,5}.

In studies of clinical practice, several investigations have shown that:

1. Nurses stereotype patients in surgical wards and subsequently treat them according to their prejudices⁶

2. Differences of knowledge, beliefs and experiences of medical and nursing personnel can result in wide variation in staff's perceptions of a patient's pain and subsequent decisions in pain relief^{7,8}

3. Differences exist between patients' and nurses' perceptions of the patients' pain⁹

4. Nurses from different cultures assume different degrees of suffering in the same patients¹⁰

5. Pain expression and tolerance are strongly influenced by nursing staff's control^{6,11,12}

6. Nurses and doctors can have erroneous beliefs about narcotics and may be overly concerned about the possibility of addiction^{3,13,14}

7. Trained nurses are unsure about learners' background knowledge of pain relief. Tutors expect the major part of teaching about pain to be done in the clinical area¹⁵

8. Pre-operative discussion with patients of pain relief is not usually practised¹⁵

9. Patients may receive less narcotic analgesia postoperatively than can be accommodated within the prescripional framework and nurses may believe that complete pain relief after surgery is not their major goal¹⁶

Concern has been expressed about

the under-treatment of patients with regard to analgesic drugs^{3,17,18,19}.

The importance of nursing intervention in treating pain has been noted by many researchers, in the USA particularly:

1. Lessening pre-operative anticipatory fear and anxiety results in reduced postoperative pain^{20,21,22,23}

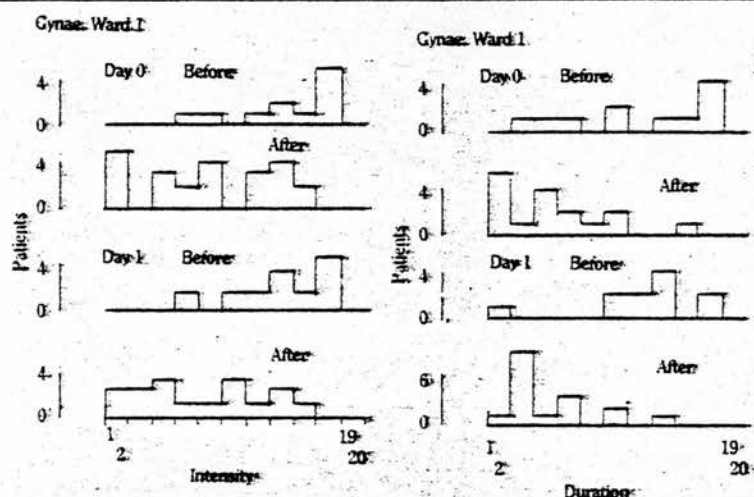
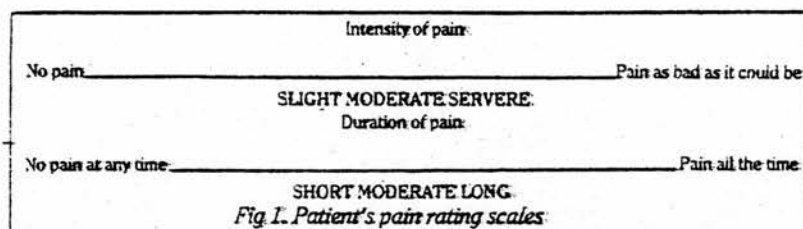
2. The quality of the nurse/patient relationship influences the effectiveness of nursing interventions^{24,25,26,27}

3. Pain can be assessed with a view to achieving optimum pain relief^{6,9,28,29,30,31,32}

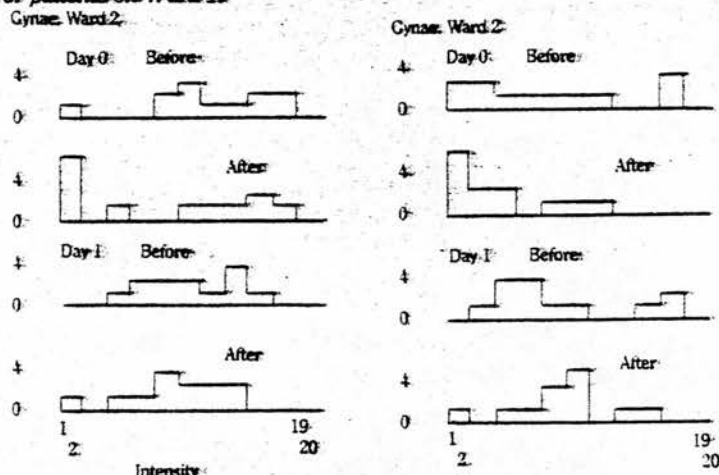
In addition, it has been suggested that nursing patients in pain is a cause of stress in nurses^{33,34}. Bonica³⁵ proposed organised teaching programmes for medical and other health professionals to improve the situation. Dodson³⁶ suggested that nurses could be trained in pain relief methods. Many recommendations for nursing practice, education and continuing education have been put forward^{4,9,13,21,27,38}.

In relation to nursing education, McFarlane's³⁹ view that 'the primary objective of education in the profession is education for practice' is appropriate. I would like to add a corollary—that is, that the primary objective of research into practice is to influence education. Ford⁴⁰ urged the unification of nursing practice, education and research—'Service and education should collaborate, communicate and co-operate to assure quality nursing care.' Having read the evidence for clinical practice falling short of what can be achieved and the need for education, it seemed to me that with specialised education in the clinical area nurses could be helped to maximise caring potential in managing postoperative pain.

The main aim of the study was to assess the practicability and effectiveness of a clinically based educational pro-



Figs 3 and 4. Pain on the day of operation and first postoperative day for patients on Ward 1.



Figs 5 and 6. Pain on the day of operation and first postoperative day for patients on Ward 2.

Ward 1:			
Group A before education for nurses		Group B after education for nurses	
Ward data	Home interview	Ward data	Home interview
11	11	16	14
1 refused participation		0 refused participation	
0 declined home interview		2 declined home interview	
Ward 2:			
Group A before education for nurses		Group B after education for nurses	
Ward data	Home interview	Ward data	Home interview
12	12	12	8
0 refused participation		0 refused participation	
0 declined home interview		4 declined home interview	

Table 1. Number of patients studied in gynaecology wards 1 and 2

programme for all levels of ward nurses on pain management. Because patients on a surgical ward are cared for by a team of nurses, it was considered appropriate to try to bridge the gap between service and education by involving the whole team (that is, both trained and untrained nurses) in the project. (Weatherston⁴¹ suggests that liaison of teaching and clinical staff may need as much determination and cunning to bring the two partners together as in an illicit affair!)

The following research questions were formulated:

1. Allowing for turnover of staff and everyday 'routines', is it possible for nurses on a surgical ward to participate in a ward-based educational programme on various aspects of pain, and if so, are differences to be found in measurement of patients' pain intensity and duration before and after the introduction of the educational package?

2. What are the nursing team's beliefs, values and knowledge about pain and its relief postoperatively and do some of these change following the educational programme?

3. What are the general and work satisfactions and frustrations of the nursing team, and how do these relate to the care the nurses give to patients (especially in the area of pain relief)?

4. Will the nursing team be willing to implement a pain assessment tool and, if so, will its use be accompanied by improved pain relief?

5. Are there differences in patients' general subjective experiences following similar operations before and after the educational programme, and what variables may influence these experiences?

The findings of a pilot study⁴² suggested that it may be possible to improve the current level of post-operative pain relief by a ward-based teaching programme. The approaches adopted were generally found to be practicable and acceptable to both patients and nurses.

Subjects for the main study include both patients and staff in four wards from three hospitals: one orthopaedic ward, two gynaecology wards and one general surgery ward. Patient respondents are all females who have undergone elective surgery for non-malignant disease and are discharged from hospital within the normally expected time for each hospital. It was originally decided to include patients aged 18 to 65, but

industrial action curtailed operation lists and it was necessary to extend the age range in order to obtain adequate samples. All nurses who are working on the ward at the time of the study are invited to participate.

Sample sizes to date are 96 patient respondents and 80 nurses spread over the four wards. Patients fall into two separate sample groups on each ward. One group is studied before implementation and the second group after completion of the educational programme for the nurses. On initial analysis, all groups appear to be comparable in terms of age and social class.

Patients are approached on the third postoperative day and their participation requested. Following agreement to participate, graphic rating scales (Fig 1) are shown to each patient, who is asked to mark the scales to indicate the average level of pain intensity and duration for each of the three preceding days.

A graduated scale of the same length, comprising 20 equal subdivisions, is subsequently superimposed on each graphic rating scale to convert the response into a numerical score. This has been shown to be the approach least likely to introduce bias into the scoring method⁴³. It has also been shown that subjects can recall pain experiences for up to five days⁴⁴. Information relevant to each patient is noted from the nursing and medical records and drug Kardex. A letter is sent to each patient's GP giving information about participation in the study and a request is made for the researcher to visit each patient at home after discharge.

Patients are interviewed at home following discharge from hospital to ascertain their general perceptions of the hospital experience and their pain relief experiences in particular. The nursing teams involved are interviewed about their beliefs, values and knowledge of pain relief. The balance of satisfaction and frustration within the team is measured by using the Heimler Work Orientation Schedule⁴⁵. Following this, an educational discussion programme is implemented at the discretion of the charge nurse and with her help. The concepts discussed with the nursing team aim to maximise our own potential as nurses (while working within a prescriptive framework of the doctor) in the area of identifying pain cues, assessing pain with individual patients and

thereby decreasing the chances of unnecessary suffering.

The programme usually takes place in the ward during overlap of shift time or during visiting times, at weekends, or at other times convenient to and pre-arranged with the charge nurse or her deputy. Small group discussions are used to develop interaction, critical thinking skills, problem-solving and decision-making in the area of managing patients' pain. Approximately four sessions are arranged and repeated to cover all staff: topics covered include the psychological and socio-cultural factors influencing pain, pain assessment and the use of analgesia. The programme usually takes about five weeks to implement. Literature, mostly research-based, on each topic is circulated before each discussion. Following the programme, if the staff express an interest in using a pain assessment tool I introduce them to one to be used for selected patients. The content of the programme is now being written up as a book.

Following the programme for nurses, patients for the second group on each ward, matched for operation with the pre-education groups, are approached and their pain is measured in the same way as for the first group. It has been important to maintain confidentiality between patient respondents and staff respondents, and also among the staff, especially during the first phase of ward data collection from patients and until all individual nurse interviews are completed. Anecdotal evidence suggests that confidentiality has been maintained between patients/staff and between staff and wards in the one hospital where two wards were involved.

Figure 2 shows the planned activities involved in carrying out the project, although in Ward 1 the data collection from patients was protracted due to the effect of industrial action on patient turnover.

Collection of data for the main study is not quite complete, so a complete analysis is not possible at this stage. However, I would like to present some selected patient data from the two gynaecology wards studied. Table 1 shows the number of patients involved. In Ward 1, 19 nurses participated. In Ward 2, 16 nurses participated.

Figures 3 and 4 show comparisons in terms of intensity and duration of pain on the day of operation and the first postoperative day for groups of patients

on Ward 1, studied before and after the programme for nurses.

The distribution is shown for pain intensity in patients on Ward 1. Day 0 is the day of operation and Day 1 is the day after. For each day there are results for the two samples—the before group and the after group. The before group were higher up the scale for both days. Both these differences were statistically significant at the 0.001 level (Mann Whitney U Test).

A similar set of histograms is shown for the distribution of duration scores. Again, a difference between the before and after groups on each of the two days can be seen. These differences were statistically significant for Day 0 at the 0.005 level and for Day 1 at the 0.001 level (Mann Whitney U Test).

Figures 5 and 6 show comparable sets of histograms for Ward 2 and here little difference can be seen. The only one of the four comparisons that shows a significant difference is for duration of pain for Day 0 at the 0.05 level (Mann Whitney U Test).

Some of the responses to selected questions by the two groups of patients in Ward 1 and Ward 2 during the home interview are shown in Tables 2 and 3. The most impressive differences occur between before and after samples in questions 5, 25, and 27 in Ward 1 and in questions 25 and 27 in Ward 2. These differences are interesting in so far as the questions relate to the caring of nurses about pain as seen by patients.

Considered together with the pain scores, there is a more obvious response to the educational programme in terms of patient outcomes in Ward 1. In the final analysis, interpretation of these results can only be discussed in relation to data obtained from nurses and their feelings about the project.

Ward 1 became particularly receptive to the ideas and there were many favourable comments from individual nurses on both wards. One staff nurse said: 'I found this research project on pain very interesting and worthwhile. I will use the knowledge acquired wherever I am nursing. I have gradually become more confident in dealing with postoperative pain and I am treating each patient as an individual, whereas before I am sure I grouped patients together depending on their operations. It is also more rewarding that patients are more comfortable and relaxed.'

'It is easier for me when a student

Table 2. Main study: gynaecology ward (1)

	Before (without nurse education)	After (with nurse education)
Q.5 How would you rate this last experience (during the few days after the operation)?		
Very painful	8	0
Moderately painful	3	12
A little pain	0	2
Pain free	0	0
Total	11	14
Q.11 Was the pain:		
Worse than you expected?		
About what you expected?		
Less than you expected?		
Worse	7	4
About	3	5
Less	1	5
Total	11	14
Q.25 Did you feel that your pain was noticed by the nurses?		
Always	0	4
Most of the time	4	9
Some of the time	1	1
Seldom	1	0
Never	5	0
Total	11	14
Q.27 Do you feel that nurses generally:		
Care a lot about pain relief?		
Care adequately about pain relief?		
Could care more about pain relief?		
Care a lot	2	14
Care adequately	3	0
Could care more	6	0
Total	11	14
Q.38 What do you consider the ideal goal for pain relief after an operation?		
Be completely pain free	3	2
Have as much pain relief as possible	4	7
Enough pain relief so that person can move about in bed	3	3
Relief of pain to where the person can just tolerate it	1	2
Total	11	14

Table 3. Main study: gynaecology ward (2)

	Before (without nurse education)	After (with nurse education)
Q.5 How would you rate this last experience (during the few days after the operation)?		
Very painful	8	2
Moderately painful	4	6
A little pain	0	0
Pain free	0	0
Total	12	8
Q.11 Was the pain:		
Worse than you expected?		
About what you expected?		
Less than you expected?		
Worse	3	2
About	6	3
Less	3	3
Total	12	8
Q.25 Did you feel that your pain was noticed by the nurses?		
Always	0	1
Most of the time	1	5
Some of the time	2	1
Seldom	4	1
Never	5	0
Total	12	8
Q.27 Do you feel that nurses generally:		
Care a lot about pain relief?		
Care adequately about pain relief?		
Could care more about pain relief?		
Care a lot	1	3
Care adequately	6	4
Could care more	5	1
Total	12	8
Q.38 What do you consider the ideal goal for pain relief after an operation?		
Be completely pain free	2	3
Have as much pain relief as possible	3	4
Enough pain relief so that person can move about in bed	5	1
Relief of pain to where the person can just tolerate it	2	0
Total	12	8

nurse informs me that a patient has pain, for instance, two hours after an injection, as now I can do something positive. The pain assessment charts are very useful as they give a very clear picture of the patient's tolerance of pain and reaction to analgesia. It also makes the nurses more aware of the patient's pain. You have to take action if pain is assessed as moderate or severe. I hope we can continue using the pain assessment charts.

And she added, 'the doctors are no problem and are prescribing analgesia in a different way now'.

Ward 1 nurses are continuing to use pain assessment (Fig 7) in conjunction with emotional assessment of patients on admission. I would emphasise the need to assess pain with a patient, not on a patient, and also the importance of the educational programme before the introduction of pain assessment.

I have not discussed the logistical problems involved in carrying out this project, nor the importance of support for the staff during discussions of difficulties and past mistakes. Many nurses told me they had never thought about pain relief before. In addition, it was very important to support at the home visit those patients who had suffered unrelieved pain while in hospital.

I would like to mention that I was sustained in many ways during the implementation of the project through academic supervision, by colleagues and particularly other pain researchers in other disciplines.

I will report more fully on the present project when analysis of both nurse and patient data is complete but, in the meantime, I submit that there is no problem more worthy of human endeavour than the control and relief of pain. Perhaps we can take courage from a line in the play by Eugene O'Neill called *The Storm*: 'Do not ask why pain, only what is to be done with it.' NT

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	Patient Sample (pre-educational) (Programme)					Patient Sample (post-educational)				
	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
Graphic rating scale										
Drug Kardex										
Nursing Kardex										
Medical Record										
Letter to GP										
Home interview patients										
Interview nurses										
Discussion package										
One to one tutorials										

Fig 2. Activities involved in carrying out the project

* New members of the ward nursing team

Ward _____										Patient's name: _____ Hospital number: _____			
Put a tick in the column which best describes the pain since the last recording													
Date	Time	No pain or sleeping	Slight pain	Moderate pain	Severe pain	Pain as bad as it could be	Signature of nurse	Site	Comment and/or nursing action	Analgesic given			
										Name	Dose	Route	Time

Fig 7. Pain assessment chart

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APPENDIX IVe

Sofaer, B. (1983) Pain Relief - The importance of communication. Nursing Times, Vol. 79, No. 48, pp. 32-35.

Pain relief — the importance of communication

Nurses bridge the gap between patient and doctor not only by implementing the prescription for pain relief, but by telling the doctor if it is inadequate. Beatrice Sofaer demonstrates how good communication between patient, nurse and doctor is essential for effective pain relief

'I envy for our medical students the advantages enjoyed by the nurses who live in daily contact with the sick' — Sir William Osler, 1947¹

AS the above quotation indicates, we are most fortunate as nurses in having opportunities to develop fulfilling relationships with other human beings. But do we take advantage of these opportunities, particularly in facilitating pain relief? Sadly, I believe that generally speaking the answer is 'No'. Because good communication is fundamental to the relief of suffering, I would like to raise the issue of nursing responsibility in this important aspect of care.

The topic will be considered from three points of view: nurse/patient communication; nurse/doctor communication; and communication between nurses and other disciplines. I do not intend to examine the nature of pain or to discuss the numerous treatments available for pain relief. What I would like to do is to raise some questions in an area where we have a special role to play as carers.

Pain is a complex subjective phenomenon, but nurses are in a unique position to identify pain cues and facilitate relief. I have previously suggested that for a variety of reasons nurses frequently overlook their responsibilities in this field². One reason may be that insufficient attention has been paid to the importance of pain relief in the education of nurses.

Several investigations have shown that there are wide differences of knowledge and belief among medical and nursing personnel caring for patients in pain, and Bonica³ has suggested educational programmes for health carers to remedy the situation. However, while we can recognise the potential benefits of improved knowledge, a parallel improvement in communication would undoubtedly help in putting this knowledge into practice. In studies of patients' assessment of their own care it

has, in fact, been shown that failures in communication have been a major source of distress⁴.

In assuming responsibility for good communication, particularly in the area of pain relief, nurses must acknowledge the importance of three essential ingredients; trust, respect and empathy. McCaffery's definition of pain⁵ embodies these three qualities: 'Pain is what the experiencing person says it is, existing when he says it does'. Failure on the part of the nurse to acknowledge that she is accountable for effective communication may be one of the main reasons for failure to achieve optimal pain relief. Reaching the stage of accountability really involves sharing in a partnership with the patient — as a colleague once said, in any partnership with a patient the nurse should regard the patient as the senior partner.

In relation to relieving pain, nurse and patient may look to each other for guidance as to what the patient is feeling and the best way to achieve relief. Accountability for practice is now becoming a generally accepted principle in nursing, and society has the right to expect that professional nurses will give skilled service based on sound ethical principles. One of the principles laid down by the International Council of Nurses is that the fundamental responsibility of the nurse is to alleviate suffering⁶. Failure to promote good communication with patients is therefore a failure to fulfil the professional commitment to nursing.

Even when the need for good communication with patients is recognised, there may still be difficulties associated with the communication process itself. These may arise first because of the organisational setting in which the nurse/patient interactions take place, and second because both patients and staff do not simply react to the objective features of the situation but bring their own subjective interpretation to it. As far as the organisational setting is concerned, it has been shown that the

day-to-day routines in hospital involving acute care of patients encourage blindness to the important interactional aspects of pain⁷.

The influence of subjectivity is exemplified by a study in which it was found that nurses and doctors inferred less pain in patients than social workers did. It was suggested that this may have been due to a dulling of nurses' and doctors' perception of patients' pain through constant contact with patients in pain⁸. In addition it was noted that vocal patients received more attention than non-vocal patients. Furthermore, Zola⁹ has suggested that illness behaviour is related to cultural background — and some people have been taught not to complain. Zborowski¹⁰ noted differences in the behaviour of patients in pain from different cultural backgrounds. For example, Italian and Jewish patients had a tendency to show their pain more than Irish or native American patients.

We must also remember that ill patients may not always hear what is being said to them because the very presence of pain may impede communication. The implications are clear enough. If we as nurses do not encourage communication, what happens to those patients who do not, or cannot, take on themselves the responsibility of seeking help?

Difficulties may also arise if a patient's verbal expression of pain does not appear to be consistent with his other behaviour. The patient might say he is in pain when he does not appear to be so, or he might say he is not in pain when he does appear to be so. Jacox¹¹ has suggested three ways to enhance communication in such situations. First, listen to the patient and do not assume that pain is not present because the patient does not appear to be suffering. Second, rely on physiological indicators of pain. Third, use terms other than 'pain' when trying to determine a patient's state of comfort.

Dangott et al¹² have noted that

communication is affected by the use of technical jargon by the carers. They also found that health professionals communicating with patients in pain often limit themselves to giving information in an authoritative way. This mode of communication does not allow the patient to express his feelings, and Dangott et al have suggested that one helpful way to encourage emotional expression is for the carer to behave in a way that allows the patient to communicate the pain experience in his own terms. For example, rather than telling a patient that a particular procedure will or will not hurt, it would be more appropriate to say something like, 'This is uncomfortable for some people—let me know how it is for you'. This approach is based on the trust, respect and empathy I have already referred to. It entails openness and honesty, it respects the dignity of the patient and it permits the nurse to share his thoughts and feelings.

In facilitating the expression of feelings, we demonstrate professional caring and true accountability. It is not our responsibility to doubt patients, it is our responsibility to be interested and caring. As Samuel Johnson once said: 'No man can question whether wounds and sickness are not really painful'. One woman recently told me how her postoperative pain was not relieved by the medication prescribed: 'It was a nightmare. The nurses said that the pills worked for other people so they felt that there was no reason why they shouldn't work for me. But they didn't, they definitely didn't. I now equate hospitals with pain and suffering.'

IN addressing the second issue, communication between nurses and doctors, it may be stated at the outset that 'the popular image of doctors and nurses working harmoniously together is not always matched by reality'¹³. Hofling et al¹⁴ noted that professional status and standards of nurses are at

times challenged by the behaviour of medical colleagues. They demonstrated that professional relationships between nurses and doctors left much to be desired, and that the difficulties encountered, no matter what they were, often had an inhibiting effect on the resourcefulness of nurses. They also pointed out that both professions should try to find ways in which the traditional attitudes of nurses towards doctors, including trust, courtesy and respect, can be reconciled (not sacrificed) with fuller intellectual and ethical autonomy of nurses. They emphasised that the attempt to achieve fuller autonomy need not be aggressive, destructive or (in the case of female nurses) unfeminine!

The different lines of authority within the hierarchy of hospitals often interfere with the co-ordination of care for patients. There are also many changes in progress in nursing education which complicate the nurse's role in practice, and have resulted in different levels of education, factors which may be confusing and hinder communication between nurses and doctors.

The two professions sometimes adopt different language, which again may impede effective communication. For example, nurses make 'home visits' but doctors make 'house calls'. Bates¹⁵ has suggested that nurses and doctors perceive patients and each other from their own reference points. If this is so, then the importance of reciprocal communication for the benefit of the patient may not be appreciated by either side.

Goldman¹⁶, in a study of perceptions and expectations of the nurse's role held by both nurses and doctors in a Jerusalem hospital, noted that the two professions did not have a unified concept of what the nurses were doing, much less a unified idea of what they should have been doing! She recommended that nurses and doctors should consider the possibility and advantages of expanding the role of nurses. Personal experience and anecdotal evidence

substantiate her observations when it comes to communication between doctors and nurses in providing pain relief. It is obvious that doctors cannot be on hand continuously to observe the patient and must rely on the nurse for reports. McCaffery⁵ has pointed out that the issue of trust between the doctor and a patient in pain often arises, and that the nurse may be able to help the doctor to see the patient's point of view. We cannot ignore the fact that sometimes doctors and nurses assume that a patient's interests coincide with their own, as has been pointed out by the Rcn in *Towards Standards*¹⁷: 'Goals for a patient may differ or even conflict'.

The following anecdote illustrates vividly a sad lack of communication between nursing and medical staff. A senior charge nurse complained that one of the anaesthetists had been prescribing the same amount of postoperative analgesia on a four-hourly 'as required' basis for 30 years. 'It's not a satisfactory arrangement', she said. 'Sometimes a patient requires the medication more frequently, and at other times in an increased dose.' Asked why she could not simply ask the doctor to be a little more flexible in his prescribing, or request a change of prescription by the houseman, she said, 'It's hospital policy that the anaesthetist writes up the postoperative medication for the first 24 hours', and 'We've been working together for 30 years and it's impossible to fight with him'. I suggested that she might try using a postoperative pain assessment chart and seeking the anaesthetist's assistance when analgesia was not effective. When I mentioned to the anaesthetist that the ward would be trying out an assessment chart, he said, 'That's a good idea. I always prescribe four-hourly PRN for the first 24 hours, and I am always concerned that patients may suffer unnecessarily because the staff don't know how to interpret the prescription on the basis of individual needs. Nobody ever phones me! I've been working with

the charge nurse for 30 years now and it would be quite impossible to tell her what to do!

The implementation of a teaching programme alongside the postoperative pain assessment chart on that particular ward appeared to result in an improvement in the level of postoperative pain relief¹⁸. The teaching programme was aimed at increasing knowledge and awareness of the nurses, and the pain assessment chart was designed to improve communication between patient, nurse and doctor by making the recording of pain more systematic. So even after 30 years of poor communication between two professional people, resulting in poor management of postoperative pain, it was possible to detect an improvement through this combined approach.

Communication if it is insensitive is almost as bad as no communication at all. On one occasion a staff nurse told a houseman that his prescription of 2.5mg diamorphine six-hourly for a patient who had undergone cholecystectomy was 'inadequate'. This was met with a stubborn refusal to change the prescription. Repeated requests from the nurse to change the medication were unsuccessful, even when the patient's pain had been documented as severe on a pain assessment chart. Eventually, the night sister found words that elicited a constructive response. She said to the doctor, 'Mrs M seems to be suffering a great deal of pain. She had a sleepless night. Do you think it would be possible to find a way to help her?' The doctor responded immediately and gladly, not only increasing the dose of analgesia but prescribing in a way that allowed for more frequent administrations.

A consultant in pain therapy recently said to me, 'I lecture to doctors and they say "why don't you talk to the nursing staff?". I lecture to nurses, and they say "why don't you talk to the doctors?"'.

Perhaps we need to recognise that our medical colleagues are human, too, and

if we listen more to them maybe they will listen more to us.

In relation to the third issue, that of interdisciplinary communication, nurses are again at an advantage compared with doctors, who are generally exposed to few interdisciplinary contacts during the medical course¹⁵. Nursing education is now consciously leaning towards a psychosocial approach involving the formal study of other disciplines, a development in keeping with the object of nursing as defined by Kinlein¹⁹, 'the person — body, mind and soul'. However, if we are to influence communication, one factor for which we must take responsibility is our image as professionals. Weaving²⁰, discussing nurses' identity, said 'nurses must become more image conscious, more able and willing to step into the spotlight. Nurses have not come fully to terms with their public accountability — they need to be prepared to be outspoken and take the consequences.' Interdisciplinary communication is fundamental if these goals are to be realised.

From the point of view of pain research the opportunities to meet specialists from other fields, especially the behavioural and physical sciences, are many. In one recent encounter a well-known pain therapist said to me condescendingly, 'It's all right for nurses to research into pain as long as they stick to caring'. With Lisbeth Hockey's slogan 'guts, grit and gumption' in mind, I assured him that there was still much to be done in the field of 'caring' that would not encroach on the field of 'curing'.

In more general terms, it is rewarding to find others interested in the same topic but from a different angle, and it is a delight to discover others willing to exchange views and research findings with mutual trust and respect in an effort to face the challenge of alleviating suffering. In the end, it may not be a matter of what particular interest each of us has as a nurse researcher, but rather that we meet the challenge of

communication at all levels.

This paper was written in Jerusalem, so I would like to end by relating an Israeli folk tale, 'The Rambam and the Bottle of Poison', which highlights the issue of responsibility²¹.

The Rambam (Maimonides) was a famous doctor in his time. He also ran a pharmacy in which there were rows of medicine bottles. When a sick man came for treatment Maimonides used to look at the medicine bottles, whereupon one of them would begin to shake. That very bottle was the remedy for the patient. Immediately, Maimonides would climb up the ladder and bring down the medicine.

A patient once visited all the other doctors in the town but they were unable to find a cure for him. Then he came to Maimonides and told him of his troubles. Maimonides looked at the bottles, and behold, the bottle of poison began to shake. Then he said to the patient, 'I am sorry, I have no remedy for you.' And to himself he pondered, if anything was to happen to this patient on account of the poison would not the blame be put on me?

The patient went away in anger, walking on until he came to a forest. There he lay down to rest in the shade of a tree. His throat was parched with thirst and he looked around for water. Suddenly, he heard a dripping sound and saw drops of liquid trickling into a jar. He decided to get up and drink from the jar. He gulped down the contents and immediately felt better. His sickness was over.

He returned to Maimonides and told him triumphantly what had happened. Maimonides said, 'Go, please, to the same place and find out where this liquid is falling from.' The man returned to the forest and saw in the tree a huge snake, dripping liquid from its mouth into the jar. The man returned to Maimonides and told him what he had seen. Maimonides laughed and said, 'The bottle of poison that began to shake at my pharmacy was the only remedy for

A few of the tables published with Beatrice Sofaer's earlier article, 'Pain relief — the core of nursing practice' (Nursing Times, November 23 1983, pp 38-42), contained misprints. They are published here in their correct form

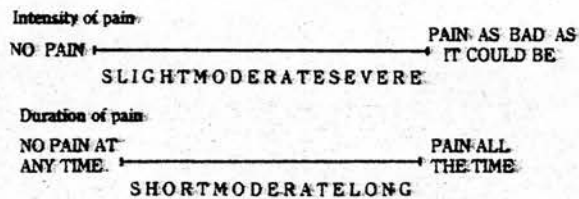


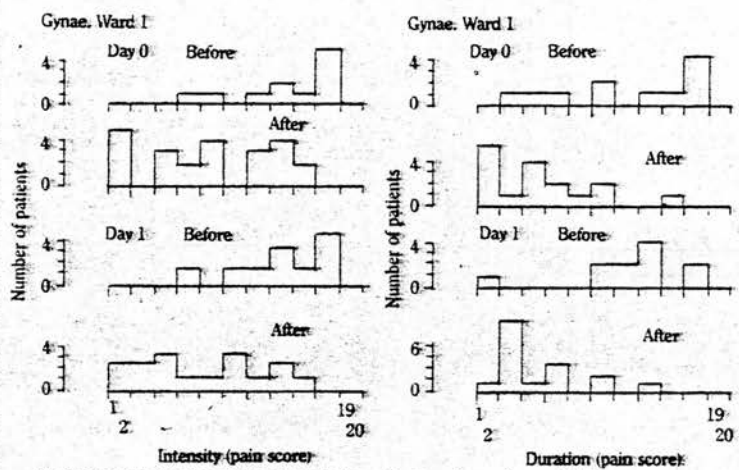
Fig 1. Graphic rating scales.

you. I knew it, but I feared that the blame would be put on me if any disaster befell you.'

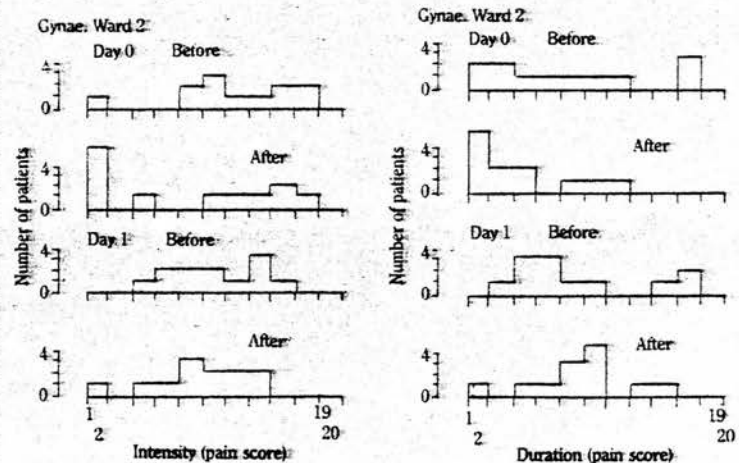
As nurses, do we compromise our professional standards in terms of responsibility for communication by succumbing to fear of blame, even though we know the answer within ourselves?

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Figs 3 and 4. Intensity and duration of pain on the day of operation and first postoperative day for patients on Ward 1



Figs 5 and 6. Intensity and duration of pain on the day of operation and first postoperative day for patients on Ward 2

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